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FIBER ORGANON

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WORLDWIDE MANUFACTURED FIBER SURVEY

Highlights

- Worldwide Survey -

  Fiber Demand
  Production and Producing Capacities
  Utilization Rates
  Directory of Producers
  Ownership Listing
  Olefin Fiber Production

Featuring....

Our annual survey of worldwide manufactured fiber production and planned capacity, with a worldwide directory of manufactured fiber producers.

Worldwide data in this issue are reported in thousand metric tons. The production and capacity tables will be published again in the July issue in millions of pounds. Country data on available supply will be published in the ***Fiber Organon*** as soon as information is available.

Data for previous years for most of the tables in this issue can be found in the ***Textile Organon Base Book*** (1962) and subsequent June issues of the ***Textile Organon*** and ***Fiber Organon***. The cotton demand figures shown in the table below are based on worldwide consumption rather than production, to eliminate problems from wide swings in cotton inventories.

TABLE 1:
WORLDWIDE DEMAND FOR CERTAIN FIBERS
THOUSAND METRIC TONS

TYPE OF FIBER	1986	1987	1988	1989	1990	% CHANGE 1990/1989
ARTIFICIAL (CELLULOSIC) FIBERS						
YARN+MONOFILAMENTS	924	911	947	925	901	*-2.6*
STAPLE+TOW	1935	1914	1937	1952	1945	*-0.4*
TOTAL ARTIFICIAL (CELLULOSIC)	**2859**	**2825**	**2884**	**2877**	**2846**	***-1.1***
SYNTHETIC (NONCELLULOSIC) FIBERS						
YARN+MONOFILAMENTS	5683	6040	6559	6809	6973	*+2.4*
STAPLE+TOW	7244	7701	7835	7995	7896	*-1.2*
TOTAL SYNTHETIC (NONCELLULOSIC)	**12927**	**13741**	**14394**	**14804**	**14869**	***+0.4***
TOTAL MANUFACTURED [a]	**15786**	**16566**	**17278**	**17681**	**17715**	***+0.2***
% of World Total	*44%*	*45%*	*46%*	*46%*	*46%*	
NATURAL FIBERS						
RAW COTTON [b]	18280	18243	18484	18733	18714	*-0.1*
RAW WOOL [c]	1745	1787	1830	1887	1964	*+4.1*
RAW SILK [d]	63	63	64	66	66	--
TOTAL NATURAL	**20088**	**20093**	**20378**	**20686**	**20744**	***+0.3***
% of World Total	*56%*	*55%*	*54%*	*54%*	*54%*	
WORLD TOTAL	**35874**	**36659**	**37656**	**38367**	**38459**	***+0.2***
World Total %	*100%*	*100%*	*100%*	*100%*	*100%*	

-- No Change.

The silk and manufactured fiber data are on a calendar year basis, while the figures for cotton and wool are on a seasonal basis.

a. Manufactured fiber data are from tables 3 and 4. Glass fiber, olefin and acetate cigarette tow production are not included.
b. International Cotton Advisory Committee. ***COTTON: Review of the World Situation***, May - June 1991. New series based on cotton consumption data.
c. Commonwealth Secretariat. ***Wool Statistics*** 1989-90, on a clean wool basis. See also the December 1990 ***Fiber Organon***, page 271.
d. International Silk Association; Food and Agriculture Organization of the United States.

June 1991

Fiber Organon

A Monthly Review

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TABLE 2:
NUMBER OF MANUFACTURED FIBER PRODUCING PLANTS (EXCEPT OLEFIN)

COUNTRY & REGION	ARTIFICIAL (CELL.)		SYNTHETIC (NONCELLULOSIC)					GLASS FIBER	GRAND TOTAL
	ACETATE[a]	RAYON	ACRYLIC[b]	NYLON[c]	POLY-ESTER	OTHER[d]	TOTAL		
WESTERN EUROPE									
AUSTRIA		3			1	1	2		5
BELGIUM/LUXEMBOURG	1	1		3	1		4	2	8
FINLAND		1						1	2
FRANCE		1		8	3	1	12	2	15
WEST GERMANY	1	4	3	11	11	4	29	3	37
GREECE		1		2	3		5		6
IRELAND			1	1	2		4		4
ITALY/MALTA	2	2	4	17	11	2	34	2	40
NETHERLANDS		2		1	1	2	4	1	7
NORWAY								1	1
PORTUGAL		1	1	1	1		3	1	5
SPAIN	1	2	2	7	5		14	1	18
SWEDEN		1						1	2
SWITZERLAND				5	3		8		8
TURKEY		1	2	5	8		15	1	17
UNITED KINGDOM	3	1	2	7	5	4	18	6	28
TOTAL WESTERN EUROPE	**8**	**21**	**15**	**68**	**55**	**14**	**152**	**22**	**203**
EASTERN EUROPE									
ALBANIA					1		1		1
BULGARIA		1	1	1	1		3		4
CZECHOSLOVAKIA		5		3	2		5	2	12
EAST GERMANY		8	1	3	3	1	8	1	17
HUNGARY		2	1	1			2		4
POLAND		4	1	1	2	2	6	2	12
ROMANIA		2	1	1	4		6		8
USSR	4	15	2	12	5	1	20	11	50
YUGOSLAVIA		2	1	2	5		8	1	11
TOTAL EASTERN EUROPE	**4**	**39**	**8**	**24**	**23**	**4**	**59**	**17**	**119**
U.S.A.	**3**	**3**	**6**	**37**	**37**	**12**	**92**	**16**	**114**
CANADA	**1**	**1**		**3**	**1**	**1**	**5**	**1**	**8**
OTHER AMERICAS									
ARGENTINA	1		1	6	3	1	11	1	13
BRAZIL	1	2	2	16	10	1	29	1	33
CHILE		1		2	3		5		6
COLOMBIA	1			3	4		7		8
COSTA RICA					1		1		1
CUBA		1							1
ECUADOR					3		3		3
GUATEMALA				1			1		1
MEXICO	1	1	3	9	8	2	22	1	25
PERU	1		2	4	4		10		11
URUGUAY	1			2	2		4		5
VENEZUELA	1			2	3	1	6		7
TOTAL OTHER AMERICAS	**7**	**5**	**8**	**45**	**41**	**5**	**99**	**3**	**114**
JAPAN	**4**	**11**	**7**	**11**	**19**	**18**	**55**	**12**	**82**
CHINA, PRC	**e**	**10**	**10**	**13**	**24**	**8**	**55**	**3**	**68**
OTHER ASIA									
BANGLADESH		2	1	1			2		4
INDIA	1	11	3	16	26		45		57
INDONESIA		3	1	4	11		16		19
KOREA, REP. OF	1	1	2	5	12	4	23		25
MALAYSIA		5			11		11		16
PAKISTAN	1			3	11		14		15
PHILIPPINES		1		2	2		4		5
SRI LANKA				1			1		1
TAIWAN		3	3	9	18		30		33
THAILAND		1	1	3	6		10		11
TOTAL OTHER ASIA	**3**	**27**	**11**	**44**	**97**	**4**	**156**		**186**
MIDDLE EAST, AFRICA & OCEANIA									
ALGERIA					1		1		1
AUSTRALIA				2	2		4	1	5
EGYPT		2		1	2		3		5
IRAN			1	2	1		4		4
IRAQ		1							1
ISRAEL				1			1		1
KENYA				2	5		7		7
NIGERIA					5		5		5
SOUTH AFRICA				3	4		7		7
TANZANIA					1		1		1
TOTAL MIDDLE EAST, AFRICA & OCEANIA		**3**	**1**	**11**	**21**		**33**	**1**	**37**
WORLD TOTAL*	**30**	**120**	**66**	**256**	**318**	**66**	**706**	**75**	**931**

Planned facilities indicated by an asterick (*) in our listing of worldwide producers are not included in the above table.

* Data for North Korea are not included here.

a. Acetate includes triacetate.

b. Acrylic includes modacrylic.

c. Nylon excludes aramid.

d. Other includes 22 spandex, 12 vinyon, 6 vinal, 5 aramid, 5 saran, 2 fluorocarbon, 2 PEEK, 2 PPS, and 1 each of azlon, biconstituent, cupro, PBI, polyacrylate, polycarbonate, polychlal, polyiossamide, promix and sulfar.

e. China, PRC acetate data included with rayon data.

TABLE 3:
WORLDWIDE SYNTHETIC (NONCELLULOSIC) FIBER PRODUCTION & PRODUCING CAPACITY BY COUNTRY EXCEPT OLEFIN
THOUSAND METRIC TONS

	ACTUAL PRODUCTION								
	1986			1987			1988		
COUNTRY	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL
WESTERN EUROPE									
AUSTRIA	0	15.9	15.9	0	15.7	15.7	0	16.7	16.7
BENELUX[a]	73.0	34.4	107.4	74.0	33.0	107.0	76.9	33.6	110.5
FINLAND	0.2	0	0.2	0.1	0	0.1	0.1	0	0.1
FRANCE	61.2	106.0	167.2	56.8	104.2	161.0	58.4	116.4	174.8
WEST GERMANY	350.0	395.0	745.0	355.3	404.0	759.3	359.9	391.2	751.1
GREECE	9.4	10.5	19.9	9.4	10.0	19.4	9.5	9.5	19.0
IRELAND	11.0	61.0	72.0	11.0	63.0	74.0	13.5	65.7	79.2
ITALY/MALTA	175.0	401.9	576.9	171.0	393.6	564.6	186.6	377.6	564.2
PORTUGAL	0	55.0	55.0	0	57.8	57.8	0	54.3	54.3
SPAIN	84.9	191.3	276.2	80.5	188.0	268.5	79.6	185.8	265.4
SWITZERLAND	67.1	26.0	93.1	66.2	22.1	88.3	72.8	27.4	100.2
TURKEY	60.0	169.0	229.0	69.0	191.0	260.0	77.0	182.0	259.0
UNITED KINGDOM	78.2	130.0	208.2	81.4	121.6	203.0	93.6	99.9	193.5
TOTAL WESTERN EUROPE	**970.0**	**1596.0**	**2566.0**	**974.7**	**1604.0**	**2578.7**	**1027.9**	**1560.1**	**2588.0**
EASTERN EUROPE									
ALBANIA	0.4	0	0.4	0.5	0	0.5	0.5	0	0.5
BULGARIA	38.0	47.9	85.9	39.6	48.7	88.3	40.9	49.2	90.1
CZECHOSLOVAKIA	74.7	45.8	120.5	76.6	46.5	123.1	92.6	48.6	141.2
EAST GERMANY	68.7	81.8	150.5	74.3	80.7	155.0	79.0	96.7	175.7
HUNGARY	8.4	14.0	22.4	6.8	13.8	20.6	8.5	14.2	22.7
POLAND	85.6	46.6	132.2	87.8	46.6	134.4	89.4	50.6	140.0
ROMANIA	58.8	140.9	199.7	59.5	142.4	201.9	59.4	143.6	203.0
USSR	404.8	353.0	757.8	435.0	410.2	845.2	457.7	411.1	868.8
YUGOSLAVIA	39.7	57.6	97.3	46.0	63.9	109.9	45.2	57.8	103.0
TOTAL EASTERN EUROPE	**779.1**	**787.6**	**1566.7**	**826.1**	**852.8**	**1678.9**	**873.2**	**871.8**	**1745.0**
TOTAL EUROPE	**1749.1**	**2383.6**	**4132.7**	**1800.8**	**2456.8**	**4257.6**	**1901.1**	**2431.9**	**4333.0**

Y Yarn+monofilaments.
S Staple+tow+fiberfill.
a. Includes Belgium, Netherlands and Luxembourg.

ACTUAL PRODUCTION						PRODUCING CAPACITY					
1989			1990			3/1991			12/1992		
Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL
0	17.4	17.4	0	17.5	17.5	*0*	*22.0*	*22.0*	*0*	*22.0*	*22.0*
80.0	40.0	120.0	80.0	40.0	120.0	*103.5*	*81.5*	*185.0*	*123.5*	*81.5*	*205.0*
0.2	0	0.2	0.2	0	0.2	*0.5*	*0*	*0.5*	*0.5*	*0*	*0.5*
58.4	106.6	165.0	58.7	98.3	157.0	*84.0*	*111.0*	*195.0*	*82.0*	*68.0*	*150.0*
355.0	420.0	775.0	363.0	414.0	777.0	*432.0*	*443.0*	*875.0*	*432.0*	*437.0*	*869.0*
10.2	8.0	18.2	10.2	4.0	14.2	*17.0*	*12.0*	*29.0*	*17.0*	*0*	*17.0*
16.7	73.3	90.0	16.1	76.9	93.0	*18.0*	*82.0*	*100.0*	*36.0*	*95.0*	*131.0*
195.0	345.0	540.0	186.5	374.5	561.0	*195.0*	*455.0*	*650.0*	*234.0*	*410.0*	*644.0*
0	55.8	55.8	0	57.8	57.8	*0*	*66.0*	*66.0*	*0*	*74.5*	*74.5*
79.3	175.7	255.0	79.5	171.5	251.0	*112.0*	*228.0*	*340.0*	*112.0*	*227.0*	*339.0*
72.6	23.0	95.6	75.5	18.0	93.5	*80.0*	*33.0*	*113.0*	*85.0*	*33.0*	*118.0*
87.0	196.0	283.0	85.0	183.5	268.5	*166.0*	*241.0*	*407.0*	*173.0*	*250.0*	*423.0*
100.0	85.0	185.0	100.0	82.0	182.0	*100.0*	*170.0*	*270.0*	*100.0*	*171.0*	*271.0*
1054.4	**1545.8**	**2600.2**	**1054.7**	**1538.0**	**2592.7**	***1308.0***	***1944.5***	***3252.5***	***1395.0***	***1869.0***	***3264.0***
0.5	0	0.5	0.5	0	0.5	*2.0*	*0*	*2.0*	*2.0*	*5.0*	*7.0*
39.2	49.6	88.8	35.3	43.4	78.7	*56.0*	*98.0*	*154.0*	*61.0*	*98.0*	*159.0*
79.7	52.3	132.0	80.9	48.0	128.9	*101.4*	*87.0*	*188.4*	*101.4*	*87.0*	*188.4*
68.0	109.3	177.3	57.0	74.4	131.4	*101.0*	*130.0*	*231.0*	*101.0*	*130.0*	*231.0*
6.2	14.0	20.2	4.8	14.3	19.1	*8.5*	*35.0*	*43.5*	*8.5*	*35.0*	*43.5*
82.6	52.3	134.9	63.6	41.7	105.3	*110.2*	*71.0*	*181.2*	*110.2*	*75.0*	*185.2*
60.7	144.1	204.8	50.9	121.7	172.6	*89.1*	*177.0*	*266.1*	*89.1*	*222.0*	*311.1*
472.0	422.0	894.0	485.5	428.0	913.5	*591.0*	*542.0*	*1133.0*	*606.0*	*592.0*	*1198.0*
47.1	60.4	107.5	51.7	64.3	116.0	*77.0*	*112.0*	*189.0*	*77.0*	*112.0*	*189.0*
856.0	**904.0**	**1760.0**	**830.2**	**835.8**	**1666.0**	***1136.2***	***1252.0***	***2388.2***	***1156.2***	***1356.0***	***2512.2***
1910.4	2449.8	4360.2	1884.9	2373.8	4258.7	*2444.2*	*3196.5*	*5640.7*	*2551.2*	*3225.0*	*5776.2*

TABLE 3:
WORLDWIDE SYNTHETIC (NONCELLULOSIC) FIBER PRODUCTION & PRODUCING CAPACITY BY COUNTRY EXCEPT OLEFIN *(CONTINUED)*

THOUSAND METRIC TONS

	ACTUAL PRODUCTION								
	1986			1987			1988		
COUNTRY	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL
U.S.A.	**1260.2**	**1658.6**	**2918.8**	**1304.5**	**1789.8**	**3094.3**	**1340.9**	**1806.0**	**3146.9**
CANADA	**75.3**	**64.3**	**139.6**	**71.5**	**58.2**	**129.7**	**76.1**	**59.2**	**135.3**
OTHER AMERICAS									
ARGENTINA	30.7	24.4	55.1	27.9	29.4	57.3	27.9	20.4	48.3
BRAZIL	134.8	102.2	237.0	136.3	111.8	248.1	125.8	113.9	239.7
CHILE	4.0	2.3	6.3	4.4	2.7	7.1	5.1	2.8	7.9
COLOMBIA	38.1	9.2	47.3	38.6	10.8	49.4	36.0	12.9	48.9
COSTA RICA	4.2	0	4.2	4.2	0	4.2	4.3	0	4.3
ECUADOR	5.8	0	5.8	5.6	0	5.6	6.5	0	6.5
MEXICO	134.7	161.6	296.3	125.3	207.9	333.2	130.3	208.7	339.0
PERU	11.6	34.5	46.1	11.9	33.5	45.4	12.2	31.6	43.8
URUGUAY	1.8	3.2	5.0	2.0	3.4	5.4	2.1	3.6	5.7
VENEZUELA	13.4	10.5	23.9	14.3	21.9	36.2	18.1	20.9	39.0
TOTAL OTHER AMERICAS	**379.1**	**347.9**	**727.0**	**370.5**	**421.4**	**791.9**	**368.3**	**414.8**	**783.1**
JAPAN	**605.2**	**750.4**	**1355.6**	**608.8**	**731.8**	**1340.6**	**618.9**	**733.0**	**1351.9**
CHINA, PRC	**153.8**	**593.6**	**747.4**	**209.0**	**637.0**	**846.0**	**407.7**	**666.7**	**1074.4**
OTHER ASIA									
BANGLADESH	0.5	0	0.5	0.5	0	0.5	0.6	0	0.6
INDIA	139.1	81.6	220.7	160.3	105.7	266.0	200.1	121.5	321.6
INDONESIA	86.2	78.0	164.2	107.0	80.9	187.9	104.0	99.6	203.6
KOREA, REP. OF	436.5	425.9	862.4	479.5	490.6	970.1	580.3	534.7	1115.0
MALAYSIA	0	37.9	37.9	0	38.9	38.9	0	40.0	40.0
PAKISTAN	23.4	24.4	47.8	25.6	25.4	51.0	28.4	32.3	60.7
PHILIPPINES	20.0	15.0	35.0	23.0	12.7	35.7	24.5	15.0	39.5
SRI LANKA	1.3	0	1.3	1.5	0	1.5	1.9	0	1.9
TAIWAN	605.6	626.5	1232.1	715.1	676.2	1391.3	732.7	697.5	1430.2
THAILAND	40.0	57.0	97.0	51.3	67.2	118.5	55.1	74.4	129.5
TOTAL OTHER ASIA	**1352.6**	**1346.3**	**2698.9**	**1563.8**	**1497.6**	**3061.4**	**1727.6**	**1615.0**	**3342.6**
MIDDLE EAST, AFRICA & OCEANIA									
ALGERIA	0	0	0	0	0	0	0	0	0
AUSTRALIA/NZ	16.3	1.0	17.3	16.0	1.1	17.1	15.2	1.2	16.4
EGYPT	6.3	30.6	36.9	6.9	32.1	39.0	8.2	34.2	42.4
IRAN	9.5	26.0	35.5	9.5	25.9	35.4	9.9	25.0	34.9
ISRAEL	10.5	8.0	18.5	11.5	10.0	21.5	12.0	8.0	20.0
KENYA	5.1	1.0	6.1	5.0	1.1	6.1	5.0	1.1	6.1
NIGERIA	3.5	3.1	6.6	4.0	3.1	7.1	4.5	3.1	7.6
SOUTH AFRICA	54.2	29.5	83.7	54.8	35.3	90.1	60.7	35.2	95.9
TANZANIA	2.5	0	2.5	3.0	0	3.0	3.0	0	3.0
TOTAL M.E., A. & O.	**107.9**	**99.2**	**207.1**	**110.7**	**108.6**	**219.3**	**118.5**	**107.8**	**226.3**
TOTAL WORLD	**5683.2**	**7243.9**	**12927.1**	**6039.7**	**7701.2**	**13740.9**	**6559.1**	**7834.4**	**14393.5**

ACTUAL PRODUCTION						PRODUCING CAPACITY					
1989			1990			3/1991			12/1992		
Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL
1346.4	**1773.0**	**3119.4**	**1259.7**	**1626.3**	**2886.0**	***1529.1***	***1906.5***	***3435.6***	***1561.3***	***1929.1***	***3490.4***
65.2	**59.6**	**124.8**	**65.4**	**50.9**	**116.3**	***108.4***	***73.0***	***181.4***	***108.4***	***73.0***	***181.4***
24.0	19.8	43.8	25.9	19.6	45.5	*42.6*	*36.6*	*79.2*	*42.6*	*36.6*	*79.2*
131.6	114.2	245.8	119.9	86.2	206.1	*183.4*	*153.5*	*336.9*	*199.1*	*153.5*	*352.6*
5.3	3.0	8.3	5.4	6.5	11.9	*7.7*	*11.0*	*18.7*	*7.7*	*11.0*	*18.7*
37.8	13.7	51.5	38.6	16.1	54.7	*60.4*	*41.5*	*101.9*	*60.4*	*41.5*	*101.9*
4.2	0	4.2	4.5	0	4.5	*8.0*	*0*	*8.0*	*8.0*	*0*	*8.0*
5.2	0	5.2	5.7	0	5.7	*7.2*	*0*	*7.2*	*7.2*	*0*	*7.2*
135.0	202.8	337.8	132.0	191.3	323.3	*205.8*	*290.9*	*496.7*	*217.8*	*331.0*	*548.8*
12.5	26.6	39.1	12.3	32.8	45.1	*16.5*	*39.0*	*55.5*	*16.5*	*39.0*	*55.5*
1.6	4.8	6.4	1.5	4.4	5.9	*1.7*	*4.8*	*6.5*	*1.7*	*4.8*	*6.5*
19.3	27.6	46.9	16.6	22.2	38.8	*15.0*	*38.1*	*53.1*	*15.0*	*38.1*	*53.1*
376.5	**412.5**	**789.0**	**362.4**	**379.1**	**741.5**	***548.3***	***615.4***	***1163.7***	***576.0***	***655.5***	***1231.5***
656.9	**724.0**	**1380.9**	**702.1**	**722.9**	**1425.0**	***879.0***	***913.0***	***1792.0***	***877.0***	***913.0***	***1790.0***
474.0	**754.0**	**1228.0**	**505.0**	**804.4**	**1309.4**	***583.3***	***1136.0***	***1719.3***	***589.3***	***1275.0***	***1864.3***
0.6	0	0.6	0.6	0	0.6	*1.0*	*0*	*1.0*	*4.6*	*14.0*	*18.6*
217.2	149.5	366.7	258.9	172.0	430.9	*310.2*	*295.0*	*605.2*	*430.0*	*323.0*	*753.0*
126.8	100.0	226.8	155.0	115.0	270.0	*239.0*	*169.0*	*408.0*	*321.0*	*226.0*	*547.0*
628.9	561.0	1189.9	672.3	597.4	1269.7	*801.4*	*657.0*	*1458.4*	*942.4*	*667.0*	*1609.4*
0	41.3	41.3	0	41.9	41.9	*0*	*65.0*	*65.0*	*26.0*	*70.0*	*96.0*
30.0	26.0	56.0	31.5	40.2	71.7	*47.0*	*71.0*	*118.0*	*61.0*	*71.0*	*132.0*
19.3	16.5	35.8	26.5	17.5	44.0	*44.0*	*36.0*	*80.0*	*92.0*	*72.0*	*164.0*
2.0	0	2.0	2.1	0	2.1	*3.3*	*0*	*3.3*	*3.3*	*0*	*3.3*
783.5	739.6	1523.1	866.0	755.5	1621.5	*1059.7*	*967.0*	*2026.7*	*1059.7*	*1090.0*	*2149.7*
61.8	81.5	143.3	68.7	91.5	160.2	*164.6*	*199.0*	*363.6*	*231.7*	*250.0*	*481.7*
1870.1	**1715.4**	**3585.5**	**2081.6**	**1831.0**	**3912.6**	***2670.2***	***2459.0***	***5129.2***	***3171.7***	***2783.0***	***5954.7***
0	0	0	0	0	0	*0*	*0*	*0*	*0*	*15.0*	*15.0*
15.0	1.2	16.2	15.7	1.2	16.9	*22.0*	*1.5*	*23.5*	*22.0*	*1.5*	*23.5*
9.4	38.4	47.8	10.8	40.0	50.8	*23.0*	*94.0*	*117.0*	*23.0*	*94.0*	*117.0*
10.3	29.0	39.3	10.3	34.0	44.3	*44.0*	*44.0*	*88.0*	*48.0*	*60.0*	*108.0*
12.4	0	12.4	12.9	0	12.9	*15.0*	*0*	*15.0*	*15.0*	*0*	*15.0*
6.0	1.1	7.1	6.3	1.2	7.5	*15.8*	*3.0*	*18.8*	*15.8*	*3.0*	*18.8*
4.5	1.1	5.6	4.7	1.1	5.8	*20.0*	*3.0*	*23.0*	*21.0*	*3.0*	*24.0*
52.4	35.9	88.3	50.9	30.6	81.5	*57.2*	*46.7*	*103.9*	*60.8*	*49.7*	*110.5*
0	0	0	0	0	0	*5.0*	*0*	*5.0*	*5.0*	*0*	*5.0*
110.0	**106.7**	**216.7**	**111.6**	**108.1**	**219.7**	***202.0***	***192.2***	***394.2***	***210.6***	***226.2***	***436.8***
6809.5	**7995.0**	**14804.5**	**6972.7**	**7896.5**	**14869.2**	***8964.5***	***10491.6***	***19456.1***	***9645.5***	***11079.8***	***20725.3***

TABLE 4:
WORLDWIDE ARTIFICIAL (CELLULOSIC) FIBER PRODUCTION & PRODUCING CAPACITY BY COUNTRY
THOUSAND METRIC TONS

COUNTRY	ACTUAL PRODUCTION								
	1986			1987			1988		
	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL
WESTERN EUROPE [a]									
AUSTRIA			123.9			120.0			132.0
BELGIUM/NETHERLANDS			40.0			40.0			41.0
FINLAND			55.0			54.0			60.4
FRANCE		DETAIL	21.0		DETAIL	23.0		DETAIL	15.0
WEST GERMANY		NO	119.0		NO	118.0		NO	122.0
GREECE		LONGER	7.7		LONGER	7.8		LONGER	7.2
ITALY		AVAILABLE	30.0		AVAILABLE	29.0		AVAILABLE	32.0
PORTUGAL			0.9			1.2			0.8
SPAIN			37.0			35.0			37.0
SWEDEN			22.1			23.0			20.0
TURKEY			8.0			8.0			8.7
UNITED KINGDOM			58.0			55.0			64.0
TOTAL WESTERN EUROPE	**190.6**	**331.1**	**521.7**	**185.0**	**329.0**	**514.0**	**191.0**	**349.1**	**540.1**
EASTERN EUROPE									
BULGARIA	4.2	38.0	42.2	4.3	0	4.3	4.4	0	4.4
CZECHOSLOVAKIA	18.0	37.2	55.2	18.4	36.8	55.2	18.8	39.5	58.3
EAST GERMANY	35.6	122.1	157.7	35.9	120.7	156.6	36.3	118.8	155.1
HUNGARY	0	5.5	5.5	0	4.1	4.1	0	4.2	4.2
POLAND	19.1	52.9	72.0	19.3	54.0	73.3	20.2	54.0	74.2
ROMANIA	9.0	55.0	64.0	9.0	57.0	66.0	9.1	66.5	75.6
USSR	246.0	343.0	589.0	246.5	345.0	591.5	263.8	337.2	601.0
YUGOSLAVIA	15.1	56.0	71.1	13.3	50.0	63.3	14.0	54.0	68.0
TOTAL EASTERN EUROPE	**347.0**	**709.7**	**1056.7**	**346.7**	**667.6**	**1014.3**	**366.6**	**674.2**	**1040.8**
TOTAL EUROPE	**537.6**	**1040.8**	**1578.4**	**531.7**	**996.6**	**1528.3**	**557.6**	**1023.3**	**1580.9**

Y Yarn+monofilaments.
S Staple+tow+fiberfill.
a. Due to disclosure, country detail is no longer available.
These totals do not include data for the Indonesian pilot plant nor production of artificial (cellulosic) fiber in North Korea.
Production and producing capacity by country, divided between rayon and acetate yarn, is given on pages 120 - 121.
Also note page 126 for data on production of cigarette tow.

ACTUAL PRODUCTION						PRODUCING CAPACITY					
1989			1990			3/1991			12/1992		
Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL
		136.0			135.0			*135.0*			*136.0*
		40.0			39.0			*43.0*			*43.0*
		64.8			63.8			*70.0*			*70.0*
		2.0			2.0			*3.0*			*3.0*
DETAIL NO LONGER AVAILABLE		129.0	DETAIL NO LONGER AVAILABLE		130.0	DETAIL NO LONGER AVAILABLE		*139.0*	DETAIL NO LONGER AVAILABLE		*139.0*
		7.5			7.0			*8.0*			*8.0*
		35.0			36.0			*43.0*			*44.0*
		0.9			0.8			*1.0*			*1.0*
		40.0			36.0			*42.0*			*42.0*
		20.3			24.4			*25.0*			*26.0*
		9.3			10.7			*11.2*			*11.2*
		55.0			71.0			*75.0*			*76.0*
197.0	**342.8**	**539.8**	**189.0**	**366.7**	**555.7**	***218.0***	***377.2***	***595.2***	***216.0***	***383.2***	***599.2***
4.2	0	4.2	4.3	0	4.3	*5.0*	*0*	*5.0*	*5.0*	*0*	*5.0*
17.3	29.1	46.4	16.1	40.7	56.8	*20.5*	*44.0*	*64.5*	*17.0*	*44.0*	*61.0*
28.4	121.0	149.4	26.1	106.0	132.1	*33.8*	*110.0*	*143.8*	*33.8*	*52.0*	*85.8*
0	4.3	4.3	0	4.1	4.1	*10.0*	*6.0*	*16.0*	*10.0*	*10.0*	*20.0*
17.5	44.2	61.7	13.9	21.8	35.7	*23.0*	*45.0*	*68.0*	*23.0*	*45.0*	*68.0*
9.3	61.6	70.9	9.0	63.2	72.2	*11.0*	*120.0*	*131.0*	*11.0*	*120.0*	*131.0*
245.1	338.9	584.0	238.0	323.0	561.0	*315.0*	*374.0*	*689.0*	*315.0*	*374.0*	*689.0*
14.9	56.2	71.1	15.5	57.5	73.0	*17.0*	*60.0*	*77.0*	*17.0*	*63.0*	*80.0*
336.7	**655.3**	**992.0**	**322.9**	**616.3**	**939.2**	***435.3***	***759.0***	***1194.3***	***431.8***	***708.0***	***1139.8***
533.7	**998.1**	**1531.8**	**511.9**	**983.0**	**1494.9**	***653.3***	***1136.2***	***1789.5***	***647.8***	***1091.2***	***1739.0***

TABLE 4:
WORLDWIDE ARTIFICIAL (CELLULOSIC) FIBER PRODUCTION & PRODUCING CAPACITY BY COUNTRY *(CONTINUED)*

THOUSAND METRIC TONS

COUNTRY	ACTUAL PRODUCTION								
	1986			1987			1988		
	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL
U.S.A.	**97.4**	**183.3**	**280.7**	**86.7**	**187.9**	**274.6**	**97.0**	**181.3**	**278.3**
CANADA	**8.8**	**29.1**	**37.9**	**13.0**	**28.5**	**41.5**	**13.1**	**33.2**	**46.3**
OTHER AMERICAS									
ARGENTINA	3.0	4.9	7.9	3.3	2.5	5.8	3.5	0	3.5
BRAZIL	16.8	33.6	50.4	15.0	33.9	48.9	14.9	36.6	51.5
CHILE	1.3	3.9	5.2	1.3	4.0	5.3	1.3	4.1	5.4
COLOMBIA	1.8	0	1.8	2.3	0	2.3	1.5	0	1.5
CUBA	2.6	8.7	11.3	2.7	8.8	11.5	0.7	8.9	9.6
MEXICO	12.0	0	12.0	11.4	0	11.4	12.0	0	12.0
PERU	0.8	0	0.8	1.1	0	1.1	1.3	0	1.3
URUGUAY	1.3	0	1.3	1.2	0	1.2	1.6	0	1.6
VENEZUELA	1.5	0	1.5	2.2	0	2.2	2.2	0	2.2
TOTAL OTHER AMERICAS	**41.1**	**51.1**	**92.2**	**40.5**	**49.2**	**89.7**	**39.0**	**49.6**	**88.6**
JAPAN	**102.8**	**217.2**	**320.0**	**99.4**	**201.1**	**300.5**	**99.8**	**190.8**	**290.6**
CHINA, PRC	**53.0**	**130.0**	**183.0**	**55.0**	**132.0**	**187.0**	**53.0**	**120.0**	**173.0**
OTHER ASIA									
BANGLADESH	4.0	1.1	5.1	4.5	1.3	5.8	4.8	1.0	5.8
INDIA	49.6	90.4	140.0	50.7	116.8	167.5	52.6	121.5	174.1
INDONESIA	0	46.1	46.1	0	52.0	52.0	0	59.0	59.0
KOREA, REP. OF	13.9	0	13.9	14.1	0	14.1	15.1	0	15.1
PAKISTAN	3.2	0	3.2	3.3	0	3.3	2.8	0	2.8
PHILLIPPINES	0	0	0	0	0	0	0	0	0
TAIWAN	2.8	117.1	119.9	2.4	117.2	119.6	2.6	123.2	125.8
THAILAND	0	19.0	19.0	0	21.4	21.4	0	24.0	24.0
TOTAL OTHER ASIA	**73.5**	**273.7**	**347.2**	**75.0**	**308.7**	**383.7**	**77.9**	**328.7**	**406.6**
MIDDLE EAST, AFRICA & OCEANIA									
EGYPT	7.0	4.7	11.7	7.0	4.8	11.8	7.0	5.0	12.0
IRAQ	3.0	5.5	8.5	3.1	5.5	8.6	2.9	5.5	8.4
TOTAL M.E., A & O	**10.0**	**10.2**	**20.2**	**10.1**	**10.3**	**20.4**	**9.9**	**10.5**	**20.4**
TOTAL WORLD	**924.2**	**1935.4**	**2859.6**	**911.4**	**1914.3**	**2825.7**	**947.3**	**1937.4**	**2884.7**

ACTUAL PRODUCTION						PRODUCING CAPACITY					
1989			1990			3/1991			12/1992		
Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL
98.7	164.6	263.3	93.5	135.7	229.2	*102.1*	*147.4*	*249.5*	*99.3*	*147.4*	*246.7*
13.1	33.5	46.6	11.2	28.5	39.7	*24.5*	*38.0*	*62.5*	*24.5*	*38.0*	*62.5*
3.4	0	3.4	2.7	0	2.7	*4.0*	*0*	*4.0*	*4.0*	*0*	*4.0*
14.8	40.2	55.0	14.5	40.5	55.0	*17.0*	*41.7*	*58.7*	*20.0*	*41.7*	*61.7*
1.3	4.2	5.5	1.3	4.3	5.6	*1.5*	*5.4*	*6.9*	*1.5*	*5.4*	*6.9*
1.0	0	1.0	1.3	0	1.3	*3.5*	*0*	*3.5*	*3.5*	*0*	*3.5*
0.2	8.0	8.2	0.5	8.3	8.8	*1.5*	*11.0*	*12.5*	*1.5*	*11.0*	*12.5*
12.6	0	12.6	13.2	0	13.2	*21.1*	*0*	*21.1*	*21.1*	*0*	*21.1*
1.4	0	1.4	1.4	0	1.4	*1.7*	*0*	*1.7*	*1.7*	*0*	*1.7*
1.3	0	1.3	1.6	0	1.6	*1.9*	*0*	*1.9*	*1.9*	*0*	*1.9*
1.5	0	1.5	1.2	0	1.2	*1.5*	*0*	*1.5*	*1.5*	*0*	*1.5*
37.5	52.4	89.9	37.7	53.1	90.8	*53.7*	*58.1*	*111.8*	*56.7*	*58.1*	*114.8*
98.9	174.0	272.9	99.1	176.7	275.8	*117.4*	*214.9*	*332.3*	*117.4*	*214.9*	*332.3*
50.0	130.0	180.0	53.0	150.0	203.0	*65.0*	*170.0*	*235.0*	*65.0*	*170.0*	*235.0*
4.8	1.2	6.0	4.7	1.2	5.9	*6.5*	*5.0*	*11.5*	*6.5*	*5.0*	*11.5*
56.4	142.3	198.7	58.2	158.5	216.7	*71.2*	*176.5*	*247.7*	*71.2*	*176.5*	*247.7*
0	59.0	59.0	0	60.0	60.0	*0*	*125.0*	*125.0*	*0*	*145.0*	*145.0*
15.3	0	15.3	15.8	0	15.8	*18.0*	*21.0*	*39.0*	*18.0*	*21.0*	*39.0*
2.8	0	2.8	2.8	0	2.8	*3.0*	*0*	*3.0*	*3.0*	*0*	*3.0*
0	0	0	0	0	0	*0*	*25.0*	*25.0*	*0*	*25.0*	*25.0*
2.6	145.0	147.6	2.2	145.7	147.9	*4.0*	*149.7*	*153.7*	*4.0*	*149.7*	*153.7*
0	41.2	41.2	0	41.5	41.5	*0*	*55.0*	*55.0*	*0*	*55.0*	*55.0*
81.9	388.7	470.6	83.7	406.9	490.6	*102.7*	*557.2*	*659.9*	*102.7*	*577.2*	*679.9*
7.7	5.2	12.9	7.9	5.2	13.1	*8.0*	*5.4*	*13.4*	*8.0*	*5.4*	*13.4*
3.0	5.6	8.6	3.0	5.6	8.6	*3.5*	*6.5*	*10.0*	*3.5*	*6.5*	*10.0*
10.7	10.8	21.5	10.9	10.8	21.7	*11.5*	*11.9*	*23.4*	*11.5*	*11.9*	*23.4*
924.5	1952.1	2876.6	901.0	1944.7	2845.7	*1130.2*	*2333.7*	*3463.9*	*1124.9*	*2308.7*	*3433.6*

TABLE 5:
WORLDWIDE RAYON VS. ACETATE FILAMENT YARN PRODUCTION & PRODUCING CAPACITY BY COUNTRY
THOUSAND METRIC TONS

COUNTRY	ACTUAL PRODUCTION								
	1986			1987			1988		
	H	R&C	A	H	R&C	A	H	R&C	A
WESTERN EUROPE									
AUSTRIA									
BELGIUM/NETHERLANDS									
FRANCE		DETAIL NO LONGER AVAILABLE			DETAIL NO LONGER AVAILABLE			DETAIL NO LONGER AVAILABLE	
WEST GERMANY [a]									
ITALY [a]									
SPAIN									
UNITED KINGDOM									
OTHER [b]									
TOTAL WESTERN EUROPE	71	69	51	67	70	48	75	66	50
EASTERN EUROPE									
BULGARIA	0	4	0	0	4	0	0	4	0
CZECHOSLOVAKIA	8	10	0	8	10	0	8	11	0
EAST GERMANY	14	22	0	14	22	0	14	23	0
HUNGARY	0	0	0	0	0	0	0	0	0
POLAND	5	14	0	5	15	0	5	16	0
ROMANIA	5	4	0	5	4	0	5	4	0
USSR [a]	116	80	50	117	80	50	119	85	60
YUGOSLAVIA	7	8	0	6	7	0	6	7	0
TOTAL EASTERN EUROPE	155	142	50	155	142	50	157	150	60
U.S.A.	7	6	84	7	6	74	7	6	84
CANADA	0	0	9	0	0	13	0	0	13
OTHER AMERICAS									
ARGENTINA	0	0	3	0	0	3	0	0	3
BRAZIL	1	15	0	0	15	0	0	15	0
CHILE	0	1	0	0	1	0	0	1	0
COLOMBIA	0	0	2	0	0	2	0	0	2
CUBA	3	0	0	3	0	0	1	0	0
MEXICO	2	3	7	2	3	6	2	4	6
PERU	0	0	1	0	0	1	0	0	1
URUGUAY	0	0	1	0	0	1	0	0	2
VENEZUELA	0	0	2	0	0	2	0	0	2
TOTAL OTHER AMERICAS	6	19	16	5	19	15	3	20	16
JAPAN [a]	2	74	27	2	71	27	1	72	27
CHINA, PRC	0	53	0	0	55	0	0	53	0
OTHER ASIA									
BANGLADESH	0	4	0	0	5	0	0	4	0
INDIA	5	44	+	5	46	+	9	44	0
KOREA, REP. OF	0	12	2	0	12	2	0	12	3
PAKISTAN	0	0	3	0	0	3	0	0	3
TAIWAN	0	3	0	0	2	0	0	3	0
TOTAL OTHER ASIA	5	63	5	5	65	5	9	63	6
OTHER M.E., A & O [c]	0	10	0	0	10	0	0	10	0
WORLD TOTAL	246	436	242	241	438	232	252	440	256

NA No Longer Available
H High tenacity (tire & industrial type) viscose rayon yarn.
R Regular + intermediate tenacity viscose rayon yarn.
C Cuprammonium rayon yarn.
A Acetate + triacetate yarn.
a. Produces both regular + intermediate rayon yarn and cuprammonium rayon yarn.
b. Comprises Greece, Portugal and Turkey.
c. Comprises Egypt and Iraq.

ACTUAL PRODUCTION						PRODUCING CAPACITY					
1989			1990			3/1991			12/1992		
H	R&C	A	H	R&C	A	H	R&C	A	H	R&C	A
DETAIL NO LONGER AVAILABLE			DETAIL NO LONGER AVAILABLE			DETAIL NO LONGER AVAILABLE			DETAIL NO LONGER AVAILABLE		
79	67	51	71	67	51	87	75	56	87	73	56
0	4	0	0	4	0	0	5	0	0	5	0
8	9	0	9	7	0	11	9	0	11	6	0
5	24	0	3	23	0	8	26	0	8	26	0
0	0	0	0	0	0	0	10	0	0	10	0
5	13	0	0	14	0	0	23	0	0	23	0
5	4	0	5	4	0	6	5	0	6	5	0
104	91	50	103	85	50	135	120	60	135	120	60
7	8	0	8	8	0	8	9	0	8	9	0
134	153	50	128	145	50	168	207	60	166	204	60
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0	0	3	0	0	3	0	0	4	0	0	4
0	15	0	0	15	0	0	17	0	0	20	0
0	1	0	0	1	0	0	1	0	0	1	0
0	0	1	0	0	1	0	0	4	0	0	4
+	0	0	1	0	0	1	0	0	1	0	0
2	4	7	2	4	7	3	4	14	3	4	14
0	0	1	0	0	1	0	0	2	0	0	2
0	0	1	0	0	2	0	0	2	0	0	2
0	0	2	0	0	1	0	0	2	0	0	2
2	20	15	3	20	15	4	22	28	4	25	28
+	73	26	0	72	27	0	84	33	0	84	33
0	50	0	0	53	0	0	65	0	0	65	0
0	5	0	0	5	0	0	6	0	0	7	0
9	47	0	7	51	0	21	51	0	21	50	0
0	11	4	0	11	5	0	12	6	0	12	6
0	0	3	0	0	3	0	0	3	0	0	3
0	3	0	0	2	0	0	4	0	0	4	0
9	66	7	7	69	8	21	73	9	21	73	9
0	11	0	0	11	0	0	12	0	0	12	0
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 6:
WORLDWIDE SYNTHETIC (NONCELLULOSIC) FIBER PRODUCTION & PRODUCING CAPACITY BY FIBER EXCEPT OLEFIN

THOUSAND METRIC TONS

FIBER & AREA	ACTUAL PRODUCTION								
	1986			1987			1988		
	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL
ACRYLIC+MODACRYLIC									
WEST EUROPE	1	939	940	1	948	949	1	875	876
EAST EUROPE	0	256	256	0	277	277	0	285	285
U.S.A.	0	279	279	0	268	268	0	267	267
CANADA	0	0	0	0	0	0	0	0	0
OTHER AMERICAS	0	154	154	0	181	181	0	181	181
JAPAN	3	394	397	3	404	407	3	395	398
CHINA, PRC	0	74	74	0	75	75	0	77	77
OTHER ASIA	0	327	327	0	344	344	0	351	351
MIDDLE EAST, AFRICA & OCEANIA	0	18	18	0	20	20	0	17	17
TOTAL	**4**	**2441**	**2445**	**4**	**2517**	**2521**	**4**	**2448**	**2452**
NYLON+ARAMID [a]									
WEST EUROPE	517	141	658	518	137	655	548	137	685
EAST EUROPE	553	99	652	576	100	676	603	103	706
U.S.A.	728	412	1140	770	450	1220	784	427	1211
CANADA	54	14	68	51	13	64	54	13	67
OTHER AMERICAS	170	11	181	165	10	175	160	7	167
JAPAN	260	19	279	262	17	279	267	15	282
CHINA, PRC	74	1	75	79	1	80	93	1	94
OTHER ASIA	385	4	389	424	6	430	461	6	467
MIDDLE EAST, AFRICA & OCEANIA	57	1	58	58	1	59	61	1	62
TOTAL	**2798**	**702**	**3500**	**2903**	**735**	**3638**	**3031**	**710**	**3741**
POLYESTER									
WEST EUROPE	447	507	954	451	510	961	474	539	1013
EAST EUROPE	225	430	655	249	473	722	269	481	750
U.S.A.	532	968	1500	535	1071	1606	557	1112	1669
CANADA	21	50	71	20	45	65	22	46	68
OTHER AMERICAS	208	183	391	205	230	435	207	226	433
JAPAN	322	310	632	323	283	606	329	293	622
CHINA, PRC	70	456	526	120	496	616	307	530	837
OTHER ASIA	968	1014	1982	1140	1146	2286	1267	1257	2524
MIDDLE EAST, AFRICA & OCEANIA	51	80	131	53	88	141	57	90	147
TOTAL	**2844**	**3998**	**6842**	**3096**	**4342**	**7438**	**3489**	**4574**	**8063**
OTHER FIBERS EXCEPT OLEFIN [b]									
WEST EUROPE	5	9	14	5	9	14	5	9	14
EAST EUROPE	1	3	4	1	3	4	1	3	4
U.S.A.	+	+	+	+	+	+	+	+	+
CANADA	+	0	+	+	0	+	+	0	+
OTHER AMERICAS	1	0	1	1	0	1	1	0	1
JAPAN	20	27	47	20	28	48	20	30	50
CHINA, PRC	10	63	73	10	65	75	8	59	67
OTHER ASIA	+	1	1	0	2	2	0	2	2
MIDDLE EAST, AFRICA & OCEANIA	0	0	0	0	0	0	0	0	0
TOTAL	**37**	**103**	**140**	**37**	**107**	**144**	**35**	**103**	**138**
TOTAL FIBERS ABOVE									
WEST EUROPE	970	1596	2566	975	1604	2579	1028	1560	2588
EAST EUROPE	779	788	1567	826	853	1679	873	872	1745
U.S.A.	1260	1659	2919	1305	1789	3094	1341	1806	3147
CANADA	75	64	139	71	58	129	76	59	135
OTHER AMERICAS	379	348	727	371	421	792	368	414	782
JAPAN	605	750	1355	608	732	1340	619	733	1352
CHINA, PRC	154	594	748	209	637	846	408	667	1075
OTHER ASIA	1353	1346	2699	1564	1498	3062	1728	1616	3344
MIDDLE EAST, AFRICA & OCEANIA	108	99	207	111	109	220	118	108	226
WORLD TOTAL	**5683**	**7244**	**12927**	**6040**	**7701**	**13741**	**6559**	**7835**	**14394**

Y Yarn+monofilaments.
S Staple+tow+fiberfill.
\+ Nominal quantities.
-- Negligable

a. U.S.A. nylon producing capacity data do not include aramid.
b. Other fibers are alginate, azlon, spandex or elastomer, saran, TFE-fluorocarbon, vinal and vinyon. U.S.A. production data do not include spandex.

ACTUAL PRODUCTION						PRODUCING CAPACITY						% UTILIZATION [c]	
1989			1990			3/1991			12/1992				
Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL	Y	S
1	793	794	0	807	807	0	1051	1051	0	958	958	0	75.6
0	301	301	0	287	287	0	430	430	0	434	434	0	69.7
0	246	246	0	229	229	0	216	216	0	223	223	0	90.3
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	171	171	0	151	151	0	251	251	0	257	257	0	63.4
3	363	366	4	359	363	6	426	432	6	426	432	66.7	84.3
0	105	105	0	115	115	0	170	170	0	205	205	0	78.0
0	360	360	0	355	355	0	431	431	0	454	454	0	82.8
0	14	14	0	19	19	0	25	25	0	32	32	0	84.4
4	**2353**	**2357**	**4**	**2322**	**2326**	**6**	**3000**	**3006**	**6**	**2989**	**2995**	**61.5**	**77.5**
557	148	705	532	153	685	673	190	863	703	190	893	78.9	78.1
582	105	687	562	99	661	728	122	850	732	122	854	78.7	81.1
798	445	1243	758	449	1207	909	512	1421	922	519	1441	82.2	87.2
56	16	72	56	16	72	97	24	121	97	24	121	57.7	66.7
164	7	171	154	7	161	243	14	257	248	15	263	65.5	50.0
267	16	283	274	15	289	328	27	355	373	27	400	84.6	55.6
104	2	106	112	2	114	140	10	150	140	15	155	80.3	26.7
480	6	486	516	6	522	704	8	712	874	25	899	78.8	75.0
52	1	53	53	1	54	92	3	95	93	3	96	57.6	33.3
3060	**746**	**3806**	**3017**	**748**	**3765**	**3914**	**910**	**4824**	**4182**	**940**	**5122**	**78.3**	**81.6**
487	596	1083	511	570	1081	619	690	1309	676	707	1383	82.0	86.5
273	495	768	267	447	714	407	692	1099	423	792	1215	68.0	64.6
548	1082	1630	502	948	1450	620	1179	1799	639	1187	1826	82.9	80.9
9	44	53	9	35	44	11	49	60	11	49	60	81.8	71.4
211	234	445	207	221	428	304	350	654	327	384	711	70.6	65.3
367	308	675	406	311	717	515	361	876	468	361	829	81.8	84.6
362	585	947	384	622	1006	428	881	1309	434	980	1414	89.7	72.5
1390	1349	2739	1566	1469	3035	1966	2019	3985	2297	2303	4600	83.6	76.8
58	92	150	58	88	146	110	164	274	118	191	309	56.0	56.8
3705	**4785**	**8490**	**3910**	**4711**	**8621**	**4980**	**6385**	**11365**	**5393**	**6954**	**12347**	**81.0**	**75.9**
9	9	18	12	8	20	16	14	30	16	14	30	92.3	61.5
1	3	4	1	3	4	1	8	9	1	8	9	100.0	37.5
+	+	+	+	+	+	+	+	+	+	+	+	--	--
+	0	+	+	0	+	+	0	+	+	0	+	--	0
2	0	2	1	0	1	2	0	2	2	0	2	50.0	0
20	36	56	18	38	56	30	99	129	30	99	129	60.0	38.4
8	62	70	10	65	75	15	75	90	15	75	90	66.7	86.7
0	1	1	0	1	1	0	1	1	0	1	1	0	100.0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	**111**	**151**	**42**	**115**	**157**	**64**	**197**	**261**	**64**	**197**	**261**	**68.9**	**58.7**
1054	1546	2600	1055	1538	2593	1308	1945	3253	1395	1869	3264	80.5	79.5
856	904	1760	830	836	1666	1136	1252	2388	1156	1356	2512	74.9	67.8
1346	1773	3119	1260	1626	2886	1529	1907	3436	1561	1929	3490	82.5	83.8
65	60	125	65	51	116	108	73	181	108	73	181	60.2	69.9
377	412	789	362	379	741	549	615	1164	577	656	1233	68.3	64.2
657	723	1380	702	723	1425	879	913	1792	877	913	1790	82.0	78.6
474	754	1228	506	804	1310	583	1136	1719	589	1275	1864	86.9	73.9
1870	1716	3586	2082	1831	3913	2670	2459	5129	3171	2783	5954	82.3	77.9
110	107	217	111	108	219	202	192	394	211	226	437	56.8	59.8
6809	**7995**	**14804**	**6973**	**7896**	**14869**	**8964**	**10492**	**19456**	**9645**	**11080**	**20725**	**79.7**	**76.6**

c. Based on 1990 production and average March 1990 vs. 1991 producing capacity.
The regional totals here are the same as those on pages 112 - 115.

TABLE 7:
WORLDWIDE OLEFIN FIBER PRODUCTION
THOUSAND METRIC TONS

COUNTRY	1986	1987	1988	1989	1990
WEST EUROPE					
AUSTRIA	26	27	30	29	30
BENELUX	141	160	165	200	215
DENMARK	26	30	32	36	37
FINLAND	24	18	19	10	11
FRANCE	55	58	70	70	75
GREECE/CYPRUS	15	16	17	18	20
WEST GERMANY	104	115	135	145	155
IRELAND	9	10	10	10	10
ITALY	130	130	135	135	150
NORWAY	4	5	4	5	5
PORTUGAL	30	36	37	38	38
SPAIN	41	49	53	56	60
SWEDEN	6	6	7	8	10
SWITZERLAND	17	20	22	21	23
TURKEY	6	7	7	10	10
UNITED KINGDOM	110	125	140	145	150
TOTAL WEST EUROPE	**744**	**812**	**883**	**936**	**999**
EAST EUROPE					
BULGARIA	18	25	25	25	25
CZECHOSLOVAKIA	40	42	43	44	46
EAST GERMANY	8	10	10	10	10
HUNGARY	20	22	26	28	28
POLAND	17	17	22	25	26
ROMANIA	12	15	17	20	20
U.S.S.R.	24	28	32	36	40
U.S.A.					
YARN+MONOFIL	213	224	251	268	355
STAPLE	152	164	165	173	184
FILM FIBER	263	291	293	288	282

TABLE 7:
WORLDWIDE OLEFIN FIBER PRODUCTION *(CONTINUED)*
THOUSAND METRIC TONS

COUNTRY	1986	1987	1988	1989	1990
CANADA	55	61	62	66	70
OTHER AMERICAS					
ARGENTINA	19	24	18	18	17
BRAZIL	68	84	77	82	78
CHILE	6	7	6	8	8
COLOMBIA	0	3	3	3	3
EL SALVADOR, GUATEMALA, HONDURAS	3	3	3	3	3
MEXICO	27	27	28	28	29
NICARAGUA	1	1	1	1	1
PERU	7	7	7	7	7
URUGUAY	2	2	2	2	2
JAPAN					
YARN+MONOFIL	11	14	16	20	22
STAPLE	37	36	38	38	42
FILM FIBER	NA	NA	NA	NA	NA
CHINA, PRC	146	144	240	165	225
OTHER ASIA					
KOREA, REP. OF	31	37	44	45	47
PHILIPPINES	3	3	3	3	3
TAIWAN	73	78	91	90	87
MIDDLE EAST, AFRICA & OCEANIA					
AUSTRALIA	17	20	26	28	30
SOUTH AFRICA	5	5	5	10	13
OTHER	1	1	1	1	1

The olefin data shown include the "official" country data published by a government, an association or other statistical agency as well as an estimate of the olefin fiber, mainly slit and split film fiber, believed to have been produced in the country. For example: although U.S. olefin production data include yarn, monofil, staple, film fiber, and spunbonded polypropylene, published Italian and Japanese olefin data show the production of yarn+monofilaments and staple+tow but no data on production of film fiber, such as that used in sacks, fishing nets, and carpet backing. Estimates were made in the latter example.

Due to the inconsistencies in olefin production reporting, we have made no attempt to show a worldwide total.

TABLE 8:
WORLDWIDE GLASS FIBER
PRODUCTION & PRODUCING CAPACITY
THOUSAND METRIC TONS

COUNTRY	PRODUCTION					CAPACITY	
	1986	1987	1988	1989	1990	3/91	12/92
WEST EUROPE EAST EUROPE [a]	364	407	465	470	445	*600*	*665*
U.S.A.	630	725	730	735	675	*823*	*905*
OTHER AMERICAS	35	50	65	65	60	*85*	*95*
JAPAN	240	300	340	345	371	*380*	*390*
MIDDLE EAST, AFRICA & OCEANIA [b]	30	35	55	65	80	*100*	*180*
TOTAL ABOVE	**1299**	**1517**	**1655**	**1680**	**1631**	***1988***	***2235***
CHINA P.R.C.	50	55	65	70	75	*110*	*130*
U.S.S.R.	100	110	125	133	120	*200*	*200*

Glass fiber is defined on page 129 of this issue. The glass fiber producing capacity is based on March 1991 and December 1992 annual projections.

a. The data for East Europe do not include estimates for the U.S.S.R.
b. The Other Asia, Africa & Oceania countries are Australia, India, Korea, Rep. of, South Africa and Taiwan.

TABLE 9:
ESTIMATED WORLDWIDE
CIGARETTE TOW PRODUCTION
THOUSAND METRIC TONS

AREA	1986	1987	1988	1989	1990
EUROPE [a]	104	107	114	118	120
U.S.A. OTHER AMERICAS [b]	216	247	249	265	274
ASIA [c]	42	46	49	55	58
CHINA, PRC	0	0	0	0	10
WORLD TOTAL	**362**	**400**	**412**	**438**	**462**

a. Belgium, West Germany, U.S.S.R. & United Kingdom.
b. Brazil, Canada, Colombia, Mexico & Venezuela.
c. Japan and Korea, Rep. of.

WORLDWIDE MANUFACTURED FIBER PRODUCER AFFILIATIONS & PERCENTAGE OF CAPITAL OWNERSHIP

Licensing and royalty agreements are not taken into account. The ownership of companies, other than manufactured fiber producers, is not listed; e.g., weaving mills, chemical producers, etc.

For each country, the percentage following the first-named producer is the portion owned by the captioned company; the remainder of the entry shows other ownership. For example, Akzo N.V. owns 40% of Fibras Quimicas and Alfa-Group owns 60%.

AKZO N.V. (NETHERLANDS)

Brazil	Companhia Bahiana de Fibras 82%; others 18%
	Polyenka 51%; others 49%
Colombia	Enka de Colombia 49%; others 51%
Ecuador	Enkador 49%; others 51%
West Germany	Enka 97%; public 3%
India	Century Enka 40%; others 60%
Mexico	Fibras Quimicas 40%; Alfa-Group 60%
Netherlands	Enka 100%
Spain	La Seda 58%; others 42%

AMERICAN CYANAMID COMPANY (U.S.A.)

U.S.A.	Fibers Department 100%

AMOCO CHEMICALS CORPORATION (U.S.A.)

Australia	Amoco Chemicals Pty. Ltd. 100%
Brazil	Propex do Brasil Produtos Sineticos Ltda. 100%
Canada	Amoco Fabrics & Fibers Ltd. 100%
West Germany	Amoco Deutschland G.m.b.H. 100%
U.K.	Amoco Fabrics (U.K.) Ltd. 100%
U.S.A.	Amoco Fabrics & Fibers Co. 100%

ASAHI CHEMICAL INDUSTRY CO. LTD. (JAPAN)

India	Baroda Rayon Corp. 1%; local interests 89%; others 10%
Indonesia	P.T. Indonesia Asahi Chemical 51%; others 19%; local interests 30%
Ireland	Asahi Synthetic Fibres (Ireland) 85%; others 15%
Japan	Asahi Chemical 100%
Korea, Rep. of	Tong Yang Polyester 50%; Tong Yang Nylon 50%

BASF CORPORATION

BASF Corporation Fibers Division is a division of BASF Corporation.

BASF Canada Inc. is a subsidiary of BASF Corporation and is owned 100% by BASF Corporation.

BAYER A.G. (WEST GERMANY)

Belgium	Bayer Antwerpen N.V. 100%
West Germany	Bayer A.G. 100%
	Faserwerke Lingen G.m.b.H. 100%
Peru	Bayer Industrial S.A. 60%

COURTAULDS, PLC (U.K.)

France	Courtaulds Fibres S.A. 100%
Italy	Novaceta S.p.A. 50%; SNIA 50%
Spain	Courtaulds Espana S.A. 100%
	INACSA 12%; public 88%
U.K.	Courtaulds Fibres Ltd. 100%
U.S.A./Canada	Courtaulds Fibers Inc. 100%

E. I. DU PONT DE NEMOURS & COMPANY (U.S.A.)

Argentina	Ducilo 82%; Bunge & Born 18%
Brazil	Du Pont do Brasil 100%
Canada	Du Pont Canada 75%; public 25%
West Germany	Du Pont de Nemours (Deutschland) 100%
Japan	Toray-Dupont 50%; Toray Industries 50%
Luxembourg	Du Pont Fibres 100%
Mexico	Nylon de Mexico 40%; Alfa-Group 51%; public 9%
Netherlands	Du Pont de Nemours (Nederland) 100%
Turkey	Du Pont 50%; Sabanci Group 50%
U.K.	Du Pont (U.K.) 100%
U.S.A.	Fibers Department 100%
	Polymer Products Department 100%

ENICHEM FIBRE S.p.A. (ITALY)

Italy	Alcantara S.p.A. 51%; Toray (J) 49%
	Enichem Fibre S.p.A. 100%
	Fibre Acriliche S.r.l. 100%
	Fibre Poliestere S.r.l. 100%
	Montefibre S.p.A. 100%
	Terbond S.p.A. 99%
Spain	Montefibre Hispania S.A. 100%

FIRESTONE TIRE & RUBBER COMPANY (U.S.A.)

Canada	Firestone Textiles Co. 100%
U.S.A.	Firestone Fibers & Textiles 100%

HERCULES INCORPORATED (U.S.A.)

U.S.A.	Hercules 100%

HOECHST A.G. (WEST GERMANY)

Austria	Austria Faserwerke; Hoechst Austria 51%; Lenzing 49%
Belgium	Hoechst Celanese 100%
Brazil	Hoechst Do Brasil Quimica e Farmaceutica S.A. 100%
Canada	Celanese Canada Inc. 56%; public 44%
China	Nantong Cellulose Fibers Co. Ltd.
West Germany	Hoechst A.G. 100%
	Zehlendorf 97%; others 3%
Mexico	Celanese Mexicana, S.A. 51%; public 49%
Portugal	Hoechst Fibras S.A. 100%
	Hoechst Portuguesa S.A.R.L. 100%
South Africa	Hoechst South Africa 100%
U.K.	Hoechst Fibre Industries 100%
U.S.A.	Hoechst Celanese Corporation 100%

IMPERIAL CHEMICAL INDUSTRIES LIMITED (U.K.)

West Germany	ICI Europa Fibres G.m.b.H. 100%
India	Chemicals & Fibres of India Ltd. 55%
Pakistan	ICI Pakistan Manufacturers 70%
South Africa	S.A. Nylon Spinners (through AECI Ltd.) 38%
Spain	Nurel S.A. 100%
U.K.	ICI Fibres 100%

KURARAY CO., LTD. (JAPAN)

Japan	Kuraray 100%

MITSUBISHI RAYON (JAPAN)

Japan	Mitsubishi Rayon Co. Ltd. 100%
Portugal	FISIPE 8%; Mitsubishi Corp.13%; Quimigal 64%, others 15%
Taiwan	Tong Hwa 19%; Mitsubishi Corp. 12%; others 69%

MONTEFIBRE S.p.A. (ITALY)

Italy	Industrie Tessili Vercelli S.p.A. 100%
Spain	Montefibre Hispania S.A. 100%

OWENS-CORNING FIBERGLAS CORPORATION (U.S.A.)

Belgium	Owens-Corning Fiberglas Europe 100%
Brazil	Fiberglas Fibras 100%
Canada	Fiberglas Canada 100%
France	Owens-Corning Fiberglas Europe 100%
Japan	Asahi Fiber Glass 28%; Asahi Glass Co., Ltd. 72%
Mexico	Vitro-Fibras 40%; Vitro Group 60%
Netherlands	Owens-Corning Fiberglas Netherlands 100%
Norway	Owens-Corning Fiberglas Europe 100%
Spain	Owens-Corning Fiberglas Europe 100%
Sweden	Owens-Corning Fiberglas Europe 100%
U.S.A.	Owens-Corning Fiberglas 100%

PPG INDUSTRIES (U.S.A.)

Netherlands	Silenka 100%
Taiwan	PPG Fiber Glass 50%; Nan Ya Plastics 50%
U.K.	PPG Glass Fibres Ltd. 100%
U.S.A.	PPG Fiber Glass Products 100%
Venezuela	VFG Sudamtex 49%; Sudamtex 51%

PILKINGTON BROTHERS (U.K.)

Argentina	VASA 99.7%; Glaverbel/Boussois/local interests 0.3%
India	Fibreglass Pilkington 50%, plus 1 share; Indian interests 50%, less 1 share
South Africa	Fibreglass South Africa 24.5%; Owens-Corning Fiberglas (U.S.A.) 24.5%; Plate Glass & Shatterprufe Industries Ltd. 51%
U.K.	Fibreglass PLC 100%

RHÔNE-POULENC S.A. (FRANCE)

Argentina	Rhône-Poulenc Argentina S.A. 100%
Brazil	Rhodia S.A. 100%
France	Rhône-Poulenc-Fibres 100%; Cellatex 100%; Rhovyl 100%
West Germany	Rhodia A.G. 100%
Spain	Rhône-Poulenc Fibras S.A. 100%
Switzerland	Rhône-Poulenc Viscosuiss A.G. 100%

SAINT-GOBAIN (FRANCE)

France	Saint-Gobain Industries 100%
West Germany	Gevetex-Textilglas 100%
Italy	Vetrotex Italia 100%
Spain	Cristaleria Espanola S.A. 69%
U.S.A.	CertainTeed Corp. 55%; others 45%

SNIA FIBRE (ITALY)

France	Ets. Nysam 100%
Italy	Carpol S.p.A. 100% Industrie Tessili Vercelli S.p.A. 99.8% Liba S.p.A. 100% Novaceta S.p.A. 50%; Courtaulds (U.K.) 50% Nuova Raion Italia S.p.A. 41.2%; others 58.8%

SYNTHETIC INDUSTRIES, INC.

Ireland	Synthetic Industries (Ireland) Ltd. 100%
U.K.	Synthetic Industries Ltd. 100%
U.S.A.	Synthetic Industries, Inc. 100% Fibron Company 100%

TEIJIN LTD. (JAPAN)

Indonesia	P.T. Tifico 65.8%; Toyo Menka 16.5%; local interests 17.7%
Japan	Teijin 100%
Korea, Rep. of	Sunkyung Fibres 1.8%; local interests 98.2%
Thailand	Teijin Polyester 45%; local interests 55%

TORAY INDUSTRIES, INC. (JAPAN)

Indonesia	P.T. Indonesia Toray Synthetics 59%; others 41%
Japan	Toray Industries 100%; Toray-Monofilament 100%; Toray-DuPont 50%, DuPont 50%
Korea, Rep. of	Cheil Synthetic Textiles 22.8%; others 77.2% Kolon Industries 19.3%; others 80.7%
Malaysia	Penfibre SDN. Berhad 100%
Thailand	Toray Nylon Thai 30%; others 70%

WELLMAN, INC. (U.S.A.)

Ireland	Wellman International 100%
U.S.A.	Man-Made Fiber Division 100% Fiber Industries, Inc. 100%

1991 WORLDWIDE DIRECTORY OF MANUFACTURED FIBER PRODUCERS

NOTES & DEFINITIONS

This directory of producers lists each country separately and is divided into the following categories:

(1) Artificial (Cellulosic) and Synthetic (Noncellulosic) fibers
(2) Olefin Fiber
(3) Glass Fiber

The locality shown represents a plant site.

The generic fiber names used in this survey are those established by the U.S. Federal Trade Commission (FTC). The *italicized* words are trademarks. All other fiber names are generic and appear in regular type.

• Indicates a company producing olefin fiber as well as other manufactured fiber(s). For example, Mitsubishi Rayon Co. produces olefin fiber in Japan as well as acrylic and polyester. The acrylic and polyester entries for this company are in one section and the olefin entry is shown in the Olefin Fiber section.

* Indicates a new plant, in the planning stage or under construction, or a new facility for producing a new product at an existing plant. Such facilities are not expected to be operable until 1992 or later.

Yarn means filament yarn.
Monofil means an extruded monofilament and may be either a round or rectangular (ribbon) cross-section. Monofilaments for bristles are excluded.
Film includes **Slit**: tape produced by slitting an already attenuated wide sheet of olefin film; and **Split:** fibrillated slit film.
Not included in this survey is the slit film used for decorative or tying ribbon and such.
Captive means that most or all of the fiber produced is consumed by the company in a vertical operation.

GENERIC NAMES & TRADEMARKS

The following are generic names, in **bold** type, and a brief description of the fibers covered by each name is shown in regular type.

GLASS FIBER

This fiber is made in two primary forms: continuous strand and staple sliver. Continuous strand is drawn fiber (i.e., from a textile-type bushing), while staple sliver, which is produced in relatively small amounts, is a blown fiber.

Glass fiber is produced and sold as filament yarn, strand, roving, mat, chopped strand, milled fiber and staple yarn & sliver. In addition, there are two primary uses for glass fiber: Textile, used by textile mills in conventional constructions (e.g., drapery and tire cord) or Non-Textile, used for nonconventional constructions (e.g., reinforced plastics and roofing shingles).

For additional information, see the definitions on page 239 of the November 1990 ***Fiber Organon***.

ARTIFICIAL (CELLULOSIC) FIBERS

Acetate: Cellulose acetate. Cigarette filtration tow is excluded.
Triacetate: Cellulose acetate, wherein not less than 92% of the hydroxyl groups are acetylated.
Rayon: Regenerated cellulose, including substitutions for not more than 15% of the hydrogens of the hydroxyl groups. Includes high wet modulus fiber.
Cupra: Cuprammonium rayon.
The viscose rayon yarns are identified as **Ind** (industrial or high tenacity yarn) and **reg** (regular or textile yarn).

SYNTHETIC (NONCELLULOSIC) FIBERS

Acrylic: At least 85% acrylonitrile by weight.
Modacrylic: 35% to 84% acrylonitrile by weight, except when it qualifies as rubber.
Azlon: Regenerated natural protein.
Nylon: A long-chain synthetic polyamide in which less than 85% of the amide linkages are attached directly to two aromatic rings. The types are identified as 6, 66, etc. Where a company produces both type 6 and 66, the designation 6/66 is used.
Aramid: A long-chain synthetic polyamide in which at least 85% of the amide linkages are attached directly to two aromatic rings.
Olefin: At least 85% ethylene, propylene or other olefin units by weight, except amorphous (noncrystalline) polyolefins qualifying as rubber. **E** means Polyethylene and **P** means Polypropylene. Also see adjoining notes on olefin fiber.
PBI: A long-chain having recurring imidazole groups.
Polyester: At least 85% by weight of an ester of a substituted aromatic carboxylic acid, including but not restricted to substituted terephthalate units, and parasubstituted hydroxybenzoate units.
Saran: At least 80% vinylidene chloride by weight.
Spandex: At least 85% of segmented polyurethane.
Sulfar: A long-chain synthetic polysulfide in which at least 85% of the sulfide linkages are attached to two aromatic rings.
Vinal: At least 50% by weight vinyl alcohol and wherein the vinyl alcohol plus acetal units are at least 85% by weight.
Vinyon: At least 85% vinyl chloride by weight.

Other manufactured fibers included in this survey, but not listed by the FTC, are **Polycarbonate** (U.S.A.), **Polychlal** (Japan), **Promix** (Japan) and **TFE-&FEP-fluorocarbon** (Fluoro)(Japan, U.S.A. & U.S.S.R.).

Not covered in this survey are fibers which would fall under the FTC's generic designations of rubber, lastrile, metallic and novoloid. Fibers falling under the FTC designations of anidex and nytril are no longer produced.

Carbon fibers are not included in this survey.

International Standard #2076, "Generic Names of Man-Made Fibres," as established by the International Organization for Standardization, lists some 23 names, of which the following are similar to the FTC designations: cupro, viscose, acetate, triacetate, acrylic, modacrylic, nylon or polyamide, polyester and glass. The IOS also lists modal (regenerated cellulose obtained by processes giving a high tenacity and a high wet modulus), alginate (metallic salts of alginic acid), chlorofibre (similar to the FTC's saran and vinyon), elastane (similar to the FTC's spandex), elastodiene, fluorofibre, polycarbamide, polyethylene & polypropylene (similar to the FTC's olefin), polyurethane, trivinyl and vinylal (similar to the FTC's vinal).

ALBANIA

(Producer not yet known)
Polyester (yarn & staple*)

ALGERIA

ENTERPRISE NATIONALE DES INDUSTRIES PETROCHEMIQUES (ENIP)
Polyester (yarn & staple*)

ARGENTINA

COAFI S.A.
Polyester Buenos Aires (yarn)

DUPONT S.A.
Nylon 66 Berazategui & Mercedes *Nylon Ducilo* (yarn)
Spandex Mercedes (fused multifil or coalesced monofil)

HISISA ARGENTINA S.A.I.C.I.F.
Acrylic Baradero *Cashmilon* (staple)

MANUFACTURAS DE FIBRAS SYNTETICAS (formerly Petroquimica Sudamericana)
Nylon 6 Olmos - Lapi (yarn)
Polyester Olmos - Lapi (yarn & staple)

NICIEZA y TAVERNA HNOS. S.A.
Nylon 6 Chivilcoy *Grilon* (monofil)

RHÔNE-POULENC S.A.
Acetate Quilmes (yarn)
Polyester Quilmes (yarn)

SOCIEDAD NUEVAS INDUSTRIAS ARGENTINAS FIBRAS ARTIFICIALES S.A.I.C.F.I. (SNIAFA)
Nylon 6 Hernández-La Plata *Snialon* (yarn)

VALENCIANA ARGENTINA S.A.
Nylon 6 Buenos Aires (yarn)

OLEFIN FIBER

AGAPOL S.A. (P yarn)

FIBRAFILL S.A. Olivos (P yarn)

MANUFACTURA FORTI ARGENTINA S.A.C.I.A.F.I. Buenos Aires (P yarn & staple)

PETROQUIMICA Cuyo, Mondoza (P yarn)

TEXILO S.A. La Pampa (P yarn)

VINISA S.A.I.C. Buenos Aires *Rafistal, Strofil* (E & P monofil)

GLASS FIBER

VIDRIERIA ARGENTINA S.A. (VASA) Llavallol *Texover*

AUSTRALIA

DUPONT - FIBREMAKERS LTD.
Nylon 66 Bayswater, Victoria *Bri-Nylon* (yarn & monofil), Penrith, N.S.W. (tire cord)
Polyester Bayswater *Terylene* (yarn, staple & tow)

GEOFABRICS AUSTRALASIA
Polyester North Albury, N.S.W. *Bidum* (yarn & spunbond)

OLEFIN FIBER

AMOCO CHEMICALS Liverpool, N.S.W. *Poly Bac, Propex* (P yarn & monofil)

BORAL KINNEARS PTY. LTD. Footscray, Victoria *Emu* (P yarn & monofil)

RHEEM AUSTRALIA LTD. Clayton, Victoria *Canvacon, Fabricon, Polytrac, Weedstop, Atlas, Fabcote, Tarpac, Santex* (P yarn, monofil & film)

SARLON INDUSTRIES PTY. LTD. Riverwood, N.S.W. *Sarlon* (E & P yarn & monofil)

OLEFIN FILM FIBER, only

TAPEX PTY. LTD. Waterloo, N.S.W.

GLASS FIBER

ACI FIBREGLASS, A Unit of ACI Australia, Ltd. Dandenong, Victoria

AUSTRIA

AUSTRIA FASERWERKE G.m.b.H.
Polyester Lenzing *Trevira* (staple)

GLANZSTOFF AUSTRIA A.G. (formerly Enka-Austria)
Rayon St. Pölten (ind & reg yarn)

LENZING A.G.•
Rayon Lenzing *Lenzing Viscose* (staple)
Lenzing *Lenzing Modal* (staple)
Fluoro Lenzing *Lenzing PTFE* (yarn & staple)
Polyimid Lenzing* *P84* (yarn & staple)

OLEFIN FIBER

ASOTA G.m.b.H. Linz *Asota, Linz-PP-Multifil, Linz-PP-Viles* (P yarn, staple & spunbonded)

LENZING A.G. Lenzing (P yarn)

M. TEUFELBERGER Wels

OLEFIN FILM FIBER, only

G. BORKENSTEIN & SON A.G. (formerly Seutter) Unter Eggendorf

BANGLADESH

ASHUGANJ PETROCHEMICAL COMPLEX
Acrylic — Ashuganj (staple)

BANGLADESH CHEMICAL INDUSTRIES
Rayon — (staple)

KADER SYNTHETIC FIBERS LTD.
Polyester — Dhaka* (yarn)

KARNAPHULI RAYON AND CHEMICALS LIMITED
Rayon — Chandraghona, Chittagong (reg yarn & staple)

PYLON INDUSTRIES LIMITED
Nylon 6 — Fouzdarhat Industrial Estate, Chittagong *Pylon* (yarn)

BELGIUM

BAYER ANTWERPEN N.V.
Nylon 6 — Antwerpen *Dorix* (staple)

BEAULIEU-NYLON S.A.
Nylon 6 — Kruishoutem, East Flanders (yarn & staple)

FABELTA NINOVE N.V.
Rayon — Ninove, East Flanders (reg yarn)

FABELTA ZWIJNAARDE S.A.
Nylon 66 — Zwijnaarde, East Flanders *Fabelnyl* (yarn)

HOECHST CELANESE
Acetate — Lanaken, Limburg (yarn)
Triacetate — Lanaken (yarn)

OLEFIN FIBER

DELOTEX (P staple)

N.V. FIBRILO Zele, East Flanders (P staple & film)

S.A. LA LOKEROISE Lokeren, East Flanders *Alpha Carpet, Delta Carpet* (P yarn & staple)

OSTEND STORES & ROPEWORKS S.A. Ostend, West Flanders

POLYFIL N.V. (Subsidiary of Beaulieu) Wielsbeke (P yarn)

ROGER VANDEN BERGHE N.V. Desselgem (P yarn)

T.T.C. POLYOLEFINS S.A. Overpelt, Limburg (P monofil)

OLEFIN FILM FIBER, only

N.V. JONCKVANSTEEN Passendale

S.A. PHORMIUM Zele, East Flanders

BELGIUM (continued)

POLYTEXCO S.P.R.L. Beveren, Kortryk

S.A. U.C.O. Ledeberg, Gent

GLASS FIBER

N.V. BAYER S.A. Antwerpen

OWENS-CORNING FIBERGLAS EUROPE S.A. Battice, Liége *Fiberglas*

Artificial (cellulosic) production and capacity data are combined with the Netherlands on pages 116 - 119. Synthetic (noncellulosic) production and capacity data are combined with the Netherlands and Luxembourg under "Benelux" on pages 112 - 115.

BOLIVIA

ESTATEX
La Paz

SOCIEDAD INDUSTRIAS TEXTIAL S.A. SITEX
La Paz

BRAZIL

ARTEPESCA - S.A. ARTIGOS DE PESCA DO NORDESTE *
Nylon 6 — Igarassu, Pernambuco (monofil)

BANYLSA TECELAGEM DO BRASIL S.A.
Nylon 6 — Aratú, Bahia (yarn)
Polyester — Aratú *Fio Banylsa Poliester* (yarn)

CELBRÁS QÚIMICA E TEXTL S.A.
Acrylic — Camaçari, Bahia *Triana* (staple)
Polyester — Pocos de Caldas, Minas Gerais *Fortrel* (staple)

CIA. NITRO QÚIMICA BRASILEIRA
Rayon — São Miguel Paulista, São Paulo *Viscocel, Novocel* (reg yarn)

COBAFI - CIA. BAHIANA DE FIBRAS
Nylon 6 — Camaçari, Bahia (yarn)
Polyester — Camaçari (yarn)

DE MILLUS S.A. INDUSTRIA E COMÉRCIO
Nylon 6 — Rio de Janeiro *Demilon* (yarn)

DU PONT DO BRASIL S.A.
Spandex — Paulinia, São Paulo *Lycra* (fused multifil)

EQUIPESCA - EQUIPAMENTOS DE PESCA S.A.
Nylon 6 — Campinas, São Paulo (monofil)

FIBRA S.A.
Nylon 6 — Americana, São Paulo *Lilion* (yarn)
Polyester — São Paulo (yarn)
Rayon — Americana (reg yarn & staple)

BRAZIL (continued)

HOECHST DO BRASIL QÚIMICA E FARMACÉUTICA S.A.
Polyester — Osasco *Trevira* (yarn & monofil)

INDÚSTRIAS MATARAZZO DE FIBRAS SINTÉTICAS S.A.
Nylon 6 — São José dos Campos, São Paulo (yarn)

MANAP - MANUFATURA NACIONAL DE PLÁSTICOS •
Nylon 6 — Osasco, São Paulo *Caicara* (monofil)

MARCATTO S.A. IND. E COM. •
Nylon 6 — Jaraguá do Sul, Santa Catarina (monofil)

MAZZAFERRO POLIMEROS E FIBRAS SINTÉTICAS S.A
Nylon 6 — São Bernardo do Campo, São Paulo *Grilon, Trilon* (yarn & monofil)
Polyester — São Bernardo do Campo, São Paulo (monofil)

MONOFIL - CIA. INDUSTRIAL DE MONOFILAMENTOS •
Nylon 6 — São Paulo, São Paulo (monofil)

NOVELSPUMA - ESPUMA DE NYLON S.A.
Nylon 6 — São Paulo, São Paulo (yarn)

POLYENKA S.A.
Polyester — Americana, São Paulo *Diolen* (yarn)

POLYNOR S.A. INDÚSTRIA E COMÉRCIO DE FIBRAS SINTÉTICAS DA PARÁIBA
Polyester — João Pessoa, Paraiba *Amilon, Polynor* (yarn & staple)

RHODIA S.A.
Acetate — Santo André *Albamecha* (tow)
Acrylic — São José dos Campos, São Paulo *Crylor* (staple)
Nylon 66 — Santo André *Dropnyl, Rhodianyl* (yarn & staple)
São Bernardo do Campo, São Paulo *Celtral BCF* (yarn)
Polyester — Santo André *Dropgal-Tergal, Tergal* (yarn & staple)
São José dos Campos *Bidim* (spunbonded)
São Bernardo do Campo (yarn)

RHODIA NORDESTE S.A.
Polyester — Cabo, Pernambuco *Tergal* (staple)

SEARA IND. TÉXTIL LTDA. •
Nylon 6 — Londrina, Paraná (monofil)

SPUMAR S.A. INDÚSTRIA E COMERCIO •
Nylon 6 — São Paulo (yarn)

OLEFIN FIBER

ARTEPESCA - S.A. ARTIGOS DE PESCA DO NORDESTE
Igarassu, Pernambuco (E & P monofil)

BRASIL VISCOSE S.A. Jundiapeba, São Paulo (P staple)

BRAZIL (continued)

ETRÚRIA S.A. INDÚSTRIA DE FIBRAS E FIOS SINTETICOS
Mairinque, São Paulo (P staple)

FADEMAC - FABRICA DE MATERIAIS DE CONSTR. S.A.
Jacarei, São Paulo (P staple)

FITESA - FIÁÇAO TÉXTIL DE EMBALAGENS PLÁSTICAS S.A. Guaiba, Rio Grande do Sul (P staple) & Porto Alegre, Rio Grande do Sul (P film)

INYLBRA S.A. TAPETES E VELUDOS Diadema, São Paulo (P staple)

MANAP - MANUFATURA NACIONAL DE PLÁSTICOS
Osasco, São Paulo (P monofil)

MARCATTO S.A. IND. E COM. Jaragua do Sul, Santa Catarina (E & P monofil)

MONOFIL - CIA. INDUSTRIAL DE MONOFILAMENTOS
São Paulo, São Paulo (P monofil)

SEARA IND. TÉXTIL LTDA. Londrina, Paraná (E & P monofil)

SPUMAR S.A. INDÚSTRIA E COMÉRCIO São Paulo *Fibrilene, Polylene, Polyplan, Prolene* (P yarn, staple & film)

TAPETELENE - INDÚSTRIA S.A. Pajucara/Maramguape, Cearé (P staple)

TINTORIA S.A. - BENEFICIAMENTO DE FIO (P yarn)

OLEFIN FILM FIBER, only

BRASMEN TOL CACAPAVA S.A. Cacapava, São Paulo

CACIQUE DE EMBALAGENS S.A. INDÚSTRIA E COMÉRCIO
Londrina, Paraná

C.A.T.A. - CIA. AMAZONIA TÉXTIL DE ANIAGEM S.A. Belém, Pará

CIA. FAB. YOLANDA S.A. Récife, Pernambuco

CIA. JAUENSE INDUSTRIAL Jau, São Paulo

CIA. UNIÁO MANUFATORA DE TECIDOS Rio de Janeiro

DICOPLAST S.A. INDÚSTRIA E COMÉRCIO DE PLASTICOS
Presidente Prudente, São Paulo

EMPLA - EMBALAGENS PLÁSTICAS S.A. Rio de Janeiro

FIBRASA IND. E COM. DE FIOS E EMBALAGENS S.A.
Espirito Santo

FIBROTEX TECELAGEM DE FIBRAS S.A. São Paulo

IMPLASA - INDÚSTRIA DE PLÁSTICOS ZANIOLO S.A. São José dos Pinhais, Paraná

BRAZIL (continued)

INDÚSTRIA TÉXTIL TSUZUKI LTDA. Suzano, São Paulo

IPLAC DO BRASIL S.A. PLÁSTICOS Fortaleza, Ceará*

NOVOPLAST IND. E COM. DE PLÁSTICOS Nova Odessa, São Paulo

PLABASA - PLÁSTICOS DA BAHIA S.A. Salvador, Bahiá

PLASMINAS - PLÁSTICOS MINAS LTDA. Tres Pontas, Minas Gerais

PLÁSTICOS DO PARANÁ LTDA. Londrina, Paraná

PLÁSTICOS LINIL S.A. Récife, Pernambuco

PLÁSTICOS INDÚSTRIA DE EMBALAGENS LTDA. Campinas, São Paulo

QUALITAS IND. E COM. LTDA. São Paulo

SACOPLAST/PLANOSA - PLÁSTICOS DO NORDESTE S.A. Natal, Rio Grande do Norte

GLASS FIBER

OCFIBRAS Rio Claro, São Paulo *Fiberglas*

BULGARIA

KOMBINAT "DIMITAR DIMOV" •

Acrylic	Burgas *Bulana* (staple)
Nylon 6	Vidin *Vidlon* (yarn)
Polyester	Yambol *Yambolen* (yarn, staple & tow)

KOMBINAT "SVILOSA"

Rayon	Svishtov (reg yarn)

OLEFIN FIBER

KOMBINAT "DIMITAR DIMOV" Yambol (P staple)

CANADA

BASF CANADA INC.

Nylon 6	Arnprior, Ontario *Zefran* (yarn)

CELANESE CANADA INC.

Acetate	Drummondville, Quebec (yarn)
Polyester	Millhaven, Ontario *Fortel* (yarn, staple, tow & fiberfill)

COURTAULDS (CANADA) LIMITED

Rayon	Cornwall, Ontario (staple)

DU PONT CANADA INC. •

Nylon 66	Kingston, Ontario *Antron, Cantrece, Du Pont* (yarn, staple & tow)
Spandex	Maitland *Lycra* (fused multifil)

CANADA (continued)

FIRESTONE TEXTILES CO. -A DIVISION OF FIRESTONE CANADA LTD. -LTEE

Nylon 6	Woodstock, Ontario (yarn & monofil)

OLEFIN FIBER

AMOCO FABRICS & FIBERS CO. Brantford & Hawkesbury, Ontario, St. Jean, Quebec *Protel* (P yarn, staple, E & P monofil & P film)

CALKO MILLS LTD. Rivière du Loup, Quebec (P monofil)

CANADA WESTERN CORDAGE CO., LTD. New Westminster, B.C. (P monofil)

DOON TWINES LTD. Kitchener, Ontario (P yarn, monofil & staple)

DU PONT CANADA INC. North Bay, Ontario (P film)

GUELPH TWINES LTD. Guelph, Ontario (P monofil & film)

HERCULES INC. Iberville, Ontario (staple)

NOVASTRAND St. John, New Brunswick (P monofil)

POLI-TWINE CORP. LTD. Belleville, Ontario & Saskatoon, Saskatchewan *Polytie, PolyTwine, Spiralok* (P monofil)

SCHLEGEL COMPANY CANADA Oakville (P monofil)

STRUDEX FIBRES LTD., DIVISION OF KRAUS CARPET MILLS LTD. Waterloo (P yarn & staple - captive)

OLEFIN FILM FIBER, only

FIBERWORLD, LTD. Hawkesbury, Ontario

POLYMER INTERNATIONAL (N.S.) LTD. Truro, N.S.

GLASS FIBER

FIBERGLAS CANADA LIMITED Guelph, Ontario *Fiberglas*

CHILE

GOODYEAR DE CHILE, S.A.I.C.

Nylon 6	Maipú, Santiago (yarn & monofil)

INDUSTRIAS QUIMICAS GENERALES S.A.

Rayon	Quillota, Valparaiso (ind yarn & staple)

LANERA AUSTRAL S.A.

Polyester	Santiago (yarn, staple & tops)

MANUFACTURAS SUMAR S.A.

Nylon 6	El Pinar 172, Santiago *Crilobal* (yarn)
Polyester	El Pinar 172 *Poligal* (yarn & staple)

CHILE (continued)

QUIMICA INDUSTRIAL S.A.
Polyester — Maipú, Santiago *Polycron* (staple & tops)

CHINA, PEOPLE'S REPUBLIC OF

Although reliable information on locations of manufactured fiber plants in the People's Republic of China is not available, every effort has been made to make the following listing as complete as possible.

RAYON and/or ACETATE PLANTS reported at:
Amoy, Antung, Canton, Foshan, Kirin, Nanchang, Nanking, Nantong, Paoting and Shanghai.

NYLON PLANTS reported at:
Beijing; Changsha*, Guilin*, Hondan*, Hsinhsiang, Paoting Province; Jiangsu*, Jinzhou; Liaoyang; Nanchon*; Pingdings; Shanghai; Shanyi; Sian; Sichuan; Sining; Tianjin, Yeuyang, Hunan Province* and Zhenjiang.

POLYESTER PLANTS reported at:
Beijing; Changzhou, Jiangsu Province; Fangshen, Beijing Province; Foshan; Guangdong Province; Guangzhou, Canton Province; Hangchow; Heilongjiang; Henan*; Jian, Shandong Province; Jinshan, Shanghai Province; Liaoyang; Nantong; Nanjing, Jiangsu Province; Shanghai; Sichuan; Taiyuan; Tianjin; Tientsin; Wangqing; Wuxi; Xiamen, Fujian Province; Xinhu; Xinjiang*; Yanshon and Zhenjiang.

ACRYLIC PLANTS reported at:
Anquing, Anhui Province; Chenchiang, Harbin Province; Daquing; Fushun; Lanzhou; Luda; Maoming; Qinhuangdao; Shanghai and Zibo.

SYNTHETIC (NONCELLULOSIC) PLANTS reported at:
Beijing (vinal); Canton (vinyon); Chunking (vinyon); Foochow (vinyon); Lanzhou (olefin & vinal); Shanghai (vinyon); Shengli (vinyon) and Tientsin (vinyon).

The following three plants have been reported as producing glass fiber: Shanghai Glass Fiber Plant, Shanghai Tungfanghung Glass Fiber Plant and Tientsin Glass Fiber Plant.

COLOMBIA

COLTEFIBRAS S.A.
Polyester — Igatui, Antioquia* (yarn & staple)

ENKA DE COLOMBIA S.A.
Nylon 6 — Girardota, Antioquia *Enkalon* (yarn)
Polyester — Girardota *Terlenka* (yarn & staple)

FABRICA DE HILAZAS VANYLON S.A.
Nylon 6 — Barranquilla, Atlántico *Vanylon* (yarn & monofil)

POLIMEROS COLOMBIANOS S.A.
Polyester — Medellin, Antioquia *Primel* (yarn, staple, tow & tops)

QUIMICA INDUSTRIAL (formerly CELANESE COLOMBIANA, S.A.)
Acetate — Yumbo, near Cali, Valle del Cauca (yarn)
Polyester — Yumbo (yarn & staple)

COLOMBIA (continued)

QUINTEX PLANTA DE SABANETA (formerly CELANESE COLOMBIANA, S.A.)
Nylon 6 — Sabaneta, Antioquia *Nylocel* (yarn)

ZYLETTE (LAFAYETTE)
Polyester — Bogotá (yarn)

OLEFIN FILM FIBER, only

COMPANIA NACIONAL DE EMPAQUES S.A. Medellin

PETROQUIMICA Colombiana, Cartagena*

POLYMER DE COLOMBIA S.A. Cartagena

COSTA RICA

OLYMPIC FIBERS, S.A.
Polyester — San Antonio de Belén (yarn)

CUBA

INDUSTRIAS CONSOLIDADAS DE MATANZAS, S.A.
Rayon — Matanzas (ind & reg yarn & staple)

CYPRUS

OLEFIN FIBER

LORDOS POLYSAC (LIMASSOL) LIMITED Limassol (P film)

CZECHOSLOVAKIA

CHEMICKE ZÁVODY JURAJA DIMITROVA, N.P.* (GEORGE DIMITROV CHEMICAL WORKS, NATIONAL CORP.)
Rayon — Bratislava, Slovakia (reg yarn)

CHEMLON, S.P. (CHEMLON, NATIONAL CORPORATION)
Nylon 6 — Humenné, Slovakia* *Chemlon* (yarn)

CHEMOSVIT, N.P. (CHEMOSVIT, NATIONAL CORPORATION) *
Nylon 6 — Svit, Slovakia *Svitontex* (yarn & staple)
Rayon — Svit (reg yarn)

SEVEROCESKE CHEMICKE ZÁVODY, N.P. (NORTH BOHEMIAN CHEMICAL WORKS, NATIONAL CORP.)
Rayon — Lovosice, Bohemia (ind yarn)

SILON, N.P. (SILON, NATIONAL CORPORATION)
Nylon 6 — Planá nad Luznici, Bohemia *Silon* (yarn & monofil)
Polyester — Planá nad Luznici *Tesil, Tevyro, Velana* (staple, tow & fiberfill)

CZECHOSLOVAKIA (continued)

SLOVENSKY HODVÁB, N.P. (SLOVAKIAN FILAMENT YARN, NATIONAL CORPORATION)
Polyester — Senica nad Myjavou, Slovakia *Slotera* (yarn)
Rayon — Senica nad Myjavou (reg yarn)

SPOLANA, N.P. (SPOLANA, NATIONAL CORPORATION)
Rayon — Neratovice, Bohemia (staple)

OLEFIN FIBER

CHEMICKE ZÁVODY JURAJA DIMITROVA, N.P. Bratislava *Istrona, Labren, Nobelex* (P yarn & staple)

CHEMOSVIT, N.P. Svit *Prolen, Texizol* (P yarn & spunbonded)

JUTA, N.P. Úpice, Bohemia (P spunbonded)

OLEFIN FILM FIBER, only

JUTA, N.P. Adamov, Moravia and Bernartice u Trutnova, Dvur Králové, Jilemnice & Úpice, Bohemia

POVAZSKE CHEMICKE ZÁVODY, N.P. Zilina, Slovakia

TECHNOLEN, N.P. Lomnice nad Popelkou, Bohemia

GLASS FIBER

SKLOPLAST, N.P. (SKLOPLAST, NATIONAL CORPORATION) Trnava, Slovakia (yarn, chopped strand & mat)

VERTEX, N.P. (VERTEX, NATIONAL CORPORATION) Litomysl, Bohemia (yarn, roving, mat & staple yarn)

DENMARK

OLEFIN FIBER

A/S FIBERTEX Aalborg (P staple)

DANAKLON A/S Varde (E & P staple & film), *Krenit* (P reinforcing fiber) *Soft 71* (P fiber non-woven)

ESBJERG THERMOPLAST, (a division of Vita Polymer Denmark A/S) Esbjerg (E & P monofil)

OLEFIN FILM FIBER, only

R.F.W. PLAST-INDUSTRI A/S Vejle (P film)

ROBLON A/S Frederikshavn (P film)

ECUADOR

ECUATORIANA DE TEJIDOS DE PUNTA - ECUAPUNTO CIA. LTDA.
Polyester — Punta (yarn)

ECUADOR (continued)

ENKADOR S.A.
Polyester — Sangolqui, Pichincha (yarn)

FABRICA TEXTIL LA EUROPEA C.A.
Polyester — Quito (yarn)

EGYPT

ESTABLISSEMENTS INDUSTRIELS POUR LA SOIE ET LE COTON S.A.A. (E.S.C.O.)
Rayon — Cairo (reg yarn)

MISR AL-AMIRIYA INDUSTRIAL FIBRE CO.
Polyester — Amiriya (yarn* & staple)

SOCIETE MISR POUR LA RAYONNE S.A.A. (MISR RAYON CO.)
Nylon 6 — Kafr-el-Dawar *Mismylon* (yarn), *Mismylon* (staple)
Polyester — Kafr-el-Dawar *Polymisr* (yarn)
Rayon — Kafr-el-Dawar (reg yarn & staple)

EL SALVADOR

OLEFIN FIBER

FILPERSA San Salvador *Duraplen* (E & P monofil)

SALVAPLASTIC, S.A. San Salvador (P monofil)

FINLAND

KEMIRA OY SÄTERI
Rayon — Valkeakoski (staple)

OLEFIN FILM FIBER, only

MANILLA OY Rymättylä

PIIPPO OY Lempäälä

GLASS FIBER

A. AHLSTROM OY GLASSFIBRE Karhula *Kuitulasi* (roving & mat)

FRANCE

ALLIED SIGNAL INC.
Polyester — Longwy/Lothringen* (yarn)

CELLATEX (a subsidiary of Rhône-Poulenc-Textile)
Rayon — Givet, Ardennes; Isère (reg yarn)

NYSAM S.A.
Nylon 6 — St. Quentin, Aisne *Lilion* (yarn)

FRANCE (continued)

RHÔNE-POULENC-FIBRES (a subsidiary of Rhône-Poulenc-Textile)

Nylon 66	Albi, Tarn; St. Laurent-Blangy, Pas-de-Calais, St. Quentin, Aisne & Valance, Drôme *Nylfrance* (yarn & staple)
Polyester	Gauchy, Aisne & Valence *Tergal* (yarn & staple)

RHOVYL

Vinyon	Tronville-en-Barrois, Meuse *Clévyl, Rhovyl, Thermovyl* (yarn & staple)

OLEFIN FIBER

PLASTIQUE DE ROUBAIX Roubaix (P film & staple)

SODOCA FABRICATION DE NONTISSES SYNTHETIQUES S.A.R.L. Neuf Brisach, Haut-Rhin (P spunbonded)

OLEFIN FILM FIBER, only

ETS. AMMANN & CIE. Saint-Louis

ETS. BATAILLE Rosendael

BIHR FRERES S.A. Xertigny

BOUSSAC SAINT FRERES S.A. Flixecourt

SEINE & LYS Paris

GLASS FIBER

OWENS-CORNING FIBERGLAS FRANCE S.A. L'Ardoise, Gard *Fiberglas*

VETROTEX SAINT-GOBAIN Chambéry, Savoie-Fils et Fibres de Renforcement *Vetrotex*

EAST GERMANY

CHEMIEFASER GUBEN G.m.b.H.

Nylon 6	Guben *Dederon* (yarn & monofil)
Polyester	Guben *Grisuten* (yarn)

FILMFABRIK WOLFEN A.G.

Rayon	Wolfen (ind yarn)
Vinyon	Wolfen (staple)

KUNSTSEIDENWERK ELSTERBERG G.m.b.H.

Rayon	Elsterberg, Krs. Greiz (reg yarn)

MÄRKISCHE FASER A.G. PREMNITZ

Acrylic	Premnitz, Krs. Rathenow *Wolpryla* (staple)
Nylon 6	Premnitz *Dederon* (staple)
Polyester	Premnitz *Grisuten* (staple)
Rayon	Premnitz (reg yarn)

PRIGNITZER ZELLSTOFF-ZELLWOLLE G.m.b.H. WITTENBERGE

Rayon	Wittenberge (staple)

EAST GERMANY (continued)

SÄCHSISCHE KUNSTSEIDEN G.m.b.H. PIRNA

Polyester	Pirna (yarn)
Rayon	Pirna (ind, reg & cupra yarn)

SÄCHSISCHE ZELLWOLLE G.m.b.H. PLAUEN

Rayon	Plauen (staple)

SPINNSTOFFWERK G.m.b.H. GLAUCHAU

Rayon	Glauchau (staple)

THÜRINGISCHE FASER A.G. SCHWARZA

Nylon 6	Schwarza, Krs. Rudolstadt *Dederon* (yarn)
Rayon	Schwarza (staple)

OLEFIN FIBER

SAECHSISCHE OLEFINWERKE (SOW BOEHLEN) Boehlen (E & P monofil)

GLASS FIBER

GLASSEIDEN G.m.b.H. OSCHATZ *Oschatz Glasseidengewebe, Glasseiden-Roving, Glasseiden-Stapelbindermatten, Glasseiden-Twist, Glasseiden-Zwirn, Roving-Gewebe*

WEST GERMANY

AKZO FIBERS AND POLYMERS DIVISION, ENKA A.G.

Nylon 6/66	Obernburg *Enkalon, Enka Nylon* (yarn)
Polyester	Oberbruch & Obernburg *Diolen* (yarn)
Rayon	Kelsterbach, Oberbruch & Obernburg *Cordenka, Enka Viscose* (ind & reg yarn)

BAYER A.G.

Acrylic	Dormagen *Bayer-Textilfaser Dralon* (yarn & staple)
Nylon 6	Dormagen *Perlon-Draht* (monofil)
Spandex	Dormagen *Bayer-Textilfaser Dorlastan* (fused multifil)

BOLTA WERKE G.m.b.H.

Saran	Nürnberg *Bolta* (monofil)

DEUTSCHE ICI G.m.b.H.

Nylon 66	Östringen *Timbrelle, Tactel* (yarn & staple)

DU PONT DE NEMOURS (DEUTSCHLAND) G.m.b.H.

Nylon 66	Uentrop-Hamm (yarn & staple)
Polyester	Uentrop-Hamm (staple & fiberfill)

E. HAHL KG •

Nylon 6	Munderkingen (staple)

FASERWERKE LINGEN G.m.b.H.

Acrylic	Lingen *Bayer-Texilfasern Dralon* (staple)

WEST GERMANY (continued)

HOECHST A.G.

Acrylic	Kelheim/Donau *Dolan, Dolanit* (staple)
Polyester	Bad Hersfeld, Hessen & Bobingen/Augsburg-land *Trevira* (yarn, staple & spunbonded) *Trevira-Draht* (monofil)
Rayon	Kelheim/Donau (staple)

KUNERT

Nylon 66	Deggendorf (yarn)
Polyester	Deggendorf (yarn)

LUTRAVIL SPINNVLIES •

Nylon 6	Kaiserslautern *Lutrabond* (spunbonded)
Polyester	Kaiserslautern *Lutradur* (spunbonded)

NORDDEUTSCHE FASERWERKE G.m.b.H.

Nylon 6/66	Neumünster *SIKS NYLON* (yarn), *SIKS PERLON* (yarn & staple)
Polyester	Neumünster *Avitron* (yarn)

PHOENIX GUMMIWERK A.G.

Saran	Hamburg/Harburg *Harlan* (monofil)

HEINRICH REINHOLD KG •

Nylon 6	Selbitz, Bayern (staple)

RHÔNE-POULENC - RHODIA A.G.

Acetate	Freiburg/Br. *RHODIA FILTER TOW* (tow)
Nylon 6.6	Freiburg/Br. & Rottweil a. N/Württ. *RHONEL, MERYL* (yarn & staple)
Polyester	Freiburg/Br. *SETILA, TERGAL* (yarn)

SPINNSTOFFABRIK ZEHLENDORF A.G.

Polyester	Berlin-Zehlendorf *Trevira* (yarn & staple)

WACKER-CHEMIE G.m.b.H.

Vinal	München-Burghausen *Wacker MP-Faser* (staple)

OLEFIN FIBER

J. F. ADOLFF A.G. Backnang (P film)

AMOCO FABRICS & FIBERS CO., DIVISION OF AMOCO (DEUTSCHLAND) G.m.b.H. Gronau (P film & staple)

J. H. BENECKE G.m.b.H. Peine *Corovin* (P spunbonded)

R. B. J. RUDOLF BILLERMANN KG Emsdetten (P yarn & staple)

CHEMISCHE WERKE HÜLS A.G. Marl, Kreis Recklinghausen, Westphalia *Vestolan* (E & P monofil)

DYNAMIT NOBEL A.G. Troisdorf, Bez. Köln *Trofil* (E & P monofil & tow)

DEUFIL Bergkamen (P yarn)

WEST GERMANY (continued)

FASERWERKE BOTTROP G.m.b.H. Bottrop (P staple)

FÜSSENER TEXTIL A.G. Füssen (P film)

GEO. GLEISTEIN & SOHN Bremen-Vegesack (P film & monofil)

E. HAHL KG Munderkingen (P monofil)

RUDOLF HILLER KG (P monofil)

LUTRAVIL SPINNVLIES Kaiserslautern *Lutrasil* (P spunbonded)

HEINRICH REINHOLD KG Selbitz/Bayern (P staple)

STEEN Hamburg (P staple)

WESTFALIA SPINNEREI U. KUNSTOFFWERK SCHEM KG Minden (P monofil & film)

OLEFIN FILM FIBER, only

BAUMHÜTER G.m.b.H. Wiedenbrück

BREMER WOLL-KAMMEREI Bremen-Blumenthal

ERNST JAEGER Düsseldorf-Reisholz

HEINZ G. JUNEMANN (NORDHESSISCHE HAARWARENFABRIK) Felsberg

KUSGA KUNSTOFFGARNE G.m.b.H. Mainz

POLYDRESS PLASTIC G.m.b.H. Michelstadt

POLYUNION KUNSTOFFWERK Mesum

SCHILGEN Emsdetten

SPOHN G.m.b.H Freiburg

B. T. F. TECKLENBORG & CO. Bremen-Grohn

DR. KARL WETEKAM & CO. Melsungen

GLASS FIBER

GEVETEX-TEXTILGLAS G.m.b.H. Aachen & Herzogenrath *Fiberglas Vetrotex*

SCHULLER GLASWERK Westheim

GREECE

ETMA S.A.

Nylon 6/66	Athens (yarn)
Rayon	Athens (reg yarn)

HELLENIC SYNTHETICS INDUSTRY

Polyester	Kalogreza (yarn)

GREECE (continued)

POLYETMA LTD.
Polyester — Athens (yarn)

"VOMVIX" S.A.
Nylon 6/66 — Athens (yarn)
Polyester — Athens (yarn)

OLEFIN FIBER

VIOFARM Argos (P staple)

OLEFIN FILM FIBER, only

ARIPLAST S.A. Athens

BIOSISAL Athens

DESSILA Piraeus

ELVISAK Athens

MARINE ROPE Athens

OLYMPIC ROPES Piraeus

SISAL ROPERY Salonika

C. VELLIS HEIRS S.A. Piraeus

VESY S.A. SYNTHETIC MATERIALS INDUSTRY Piraeus

GUATEMALA

HILOS SINTETICOS CENTROAMERICANOS, S.A.
Nylon 6 — San José Pinula, Guatemala (yarn) (idle)

OLEFIN FIBER

CORDELERIA LA RAPIDA Guatemala, Guatemala (P monofil)

HONDURAS

OLEFIN FIBER

POLYMER (subsidiary of United Brands) San Pedro Sula (P film)

HUNGARY

DANUFIL
Rayon — Nyergesújfalu* (staple)

MAGYAR VISCOSAGYÁR (Hungarian Viscose Factory) •
Acrylic — Nyergesújfalu *Crumeron* (staple)
Nylon 6 — Nyergesújfalu *Danamid* (yarn & staple)
Rayon — Nyergesújfalu *Crumeron* (staple)

HUNGARY (continued)

OLEFIN FIBER

GRABOPLAST Györ (P staple)

KENDER JUTA TEXTILIPARI V. Budapest (P film)

KENDERFONÓ ES SZÖVÖIPARI V. SZEGED Szeged (P film)

MAGYAR VISCOSAGYÁR Nyergesújfalu *Popril* (P staple)

SOPRONI SZÖNYEGGYÁR Sopron *Sopilen* (P yarn)

TISZA CHEMICAL COMBINE Lenin Varas (P staple)

INDIA

THE AHMEDABAD MFG. & CALICO PRINTING CO. LTD. CALICO POLYESTER FIBRE DIV.
Polyester — Vadodara, Gujarat *Ilacron* (staple)

THE BARODA RAYON CORPORATION LIMITED
Nylon 6 — Udhna, Gujarat *Snialon* (yarn)
Polyester — Udhna *Sniater* (yarn)
Rayon — Udhna (reg yarn)

BONGAIGAON REFINERY AND PETROCHEMICALS LTD.
Polyester — Goalpara, Assam (staple)

CEAT LIMITED
Nylon — Malanpur, Madhya Pradesh* (yarn)

CENTURY ENKA LIMITED
Nylon 6 — Bhosari, Pune, Maharashtra *Enkalon* (yarn)
Polyester — Bhosari (yarn)

CENTURY RAYON (Prop.: The Century Textile & Ind. Ltd.)
Rayon — Kalyan, near Bombay, Maharashtra (ind & reg yarn)

CONSOLIDATED FIBRES & CHEMICALS LTD.
Acrylic — Haldia, West Bengal* (staple)

DCL POLYESTERS LIMITED
Polyester — Mouda, Maharashtra (yarn)

ESTER INDUSTRIES LTD.
Polyester — Khatima, Nainital, Uttar Pradesh (yarn)

GARDEN SILK MILLS LIMITED
Polyester — Ankaleshwar, Gujarat* (yarn)

GARWARE NYLONS LIMITED
Nylon 6 — Pimpri, Pune, Maharashtra *Garware* (yarn)
Polyester — Pimpri (yarn)

THE GRASIM INDUSTRIES LTD.
Rayon — Birlagram, Nagda, Madhya Pradesh & Birlakootoam, Mavoor, Kerala, Kumarapatnam, Harihar, Karnataka (staple)

INDIA (continued)

GUJARAT NYLONS LTD.
Nylon 6 — Kosamba Dist: Surat, Gujarat (yarn)

HARYANA PETROCHEMICALS LTD.
Polyester — Rewari, Haryana (yarn)

HINDUSTAN PIPE UDYOG LIMITED (Div: Hindustan Synthetic Fibres)
Polyester — Gulaothi, Uttar Pradesh (yarn)

ICI INDIA LTD.
Polyester — Thane, Maharashtra *Terene* (staple)

INDIA POLYFIBRES LTD.
Polyester — Barabanki, Uttar Pradesh (staple)

INDIAN ACRYLICS LIMITED
Acrylic — Sangrur, Punjab* (staple)

INDIAN ORGANIC CHEMICALS LIMITED
Polyester — Manali, Madras, Tamil Nadu *Futura* (yarn & staple)

INDIAN PETROCHEMICALS CORP. LTD.
Acrylic — Vadodara, Baroda, Gujarat *Cashmilon* (staple)

THE INDIAN RAYON & INDUSTRIES LIMITED
Rayon — Veraval, Gujarat (reg yarn)

JCT LIMITED
Nylon 6 — Hoshiarpur, Punjab (yarn)
Polyester — Hoshiarpur (yarn & staple)

J.K. SYNTHETICS LIMITED
Acrylic — Kota, Rajasthan *Jayacrylic* (staple)
Nylon 6 — Kota *Jayanka, Jaycord, Jaykalon* (yarn)
Polyester — Kota, Rajasthan *Jakaylene* (yarn & staple)

K.K. FIBRES LTD.
Polyester — Orissa (yarn)

KESORAM RAYON (Prop.: Kesoram Industries Ltd.)
Rayon — Triveni, Hooghli, West Bengal (reg yarn)

LML FIBRES LTD.
Nylon 6 — Kanpur (yarn)
Polyester — Kanpur (yarn)

MODI FIBRES LIMITED
Rayon — Patalganga, Maharastra* (staple)

MODIPON LIMITED
Nylon 6 — Modinagar, Uttar Pradesh *Modipon* (yarn)
Polyester — Modinagar (yarn)

THE NATIONAL RAYON CORPORATION LIMITED
Nylon 6 — Mohane, Kalyan, Maharashtra *N.R.C* (yarn)
Rayon — Mohane, Kalyan (yarn)

INDIA (continued)

NIRLON LIMITED
Nylon 6 — Goregaon, Bombay, Maharashtra *Nircord, Nirlon* (yarn)
Polyester — Goregaon, Bombay, Maharashtra *Nirester* (yarn)

ORISSA SYNTHETICS LTD.
Polyester — Baulpur Village, Demkanal, Orissa (yarn* & staple)

ORKAY SILK MILLS PRIVATE LTD.
Polyester — Patalganga, Maharashtra (yarn)

PARASRAMPURIA SYNTHETICS LTD.
Nylon — Alwar, Rajasthan (yarn)
Polyester — Alwar, Rajasthan (yarn)

PASUPATI ACRYLON LIMITED
Acrylic — Moradabad, Uttar Pradesh (staple)

PETROFILS CO-OPERATIVE LIMITED
Nylon — Valia, Bharuch, Gujarat (yarn)
Polyester — Vadodara, Gujarat (yarn)
Spandex — Valia, Bharuch, Gujarat* (yarn)

PRAG BOSIMI SYNTHETICS LIMITED
Polyester — Sipajhar, Assam* (yarn)

RAJSHREE POLYFIL LIMITED
Polyester — Bharuch, Gujarat* (yarn)

RAYMOND SYNTHETICS LTD.
Polyester — Naini, Uttar Pradesh* (yarn)

RELIANCE BENGAL INDUSTRIES LIMITED
Polyester — Barjora, West Bengal* (yarn)

RELIANCE INDUSTRIES LTD.
Polyester — Patalganga, Maharashtra (yarn & staple)

SANGHI POLYESTERS LIMITED
Polyester — Hayat Nagar Mandal, Koheda, Andhra Pradesh* (yarn)

SHREE SYNTHETICS LIMITED
Nylon 6 — Ujjain, Madhya Pradesh *Shreelon* (yarn)
Polyester — Ujjain *Shreester* (yarn)

SHRI RAM FIBRES LIMITED
Nylon 6 — Bihar, Manali, Madras, Tamil Nadu *Tufcord* (yarn)

SHRIRAM RAYONS
Rayon — Kota, Rajasthan (ind yarn)

THE SIRSILK LIMITED
Acetate — Sirpur-Kaghaznagar, Andhra Pradesh (yarn & staple)

INDIA (continued)

SOUTH INDIA VISCOSE LIMITED
Rayon — Sirumughai, near Mettupalayam, Tamil Nadu (reg yarn & staple)

STERLING STEEL WIRES, LTD.
Nylon 6 — Chohal, Hoshiarpur, Punjab (yarn)
Polyester — Chohal (yarn)

STRETCH FIBRES (INDIA) LIMITED
Nylon 6 — Nagpur, Maharashtra *SF* (yarn)

SWADESHI POLYTEX LIMITED
Polyester — Kavinagar, Gaziabad, Uttar Pradesh *Jailene* (staple)

THE TRAVANCORE RAYONS LIMITED
Rayon — Rayonpuram, Kerala (reg yarn)

TUNGABHADRA FIBRES LTD.
Rayon — Hosahalli Village, Karnataka (staple)

OLEFIN FIBER

ALEMBIC CHEMICIAL WORKS CO. LIMITED Vadodara (P yarn & staple)

GARWARE WALL ROPES LIMITED Bombay* (P yarn & staple)

GUJARAT FILAMENTS CORPORATION LTD. Baroda, Gujarat (P yarn)

NATIONAL RAYON CORPORATION LIMITED Bombay (P yarn)

RAJASTHAN PETROSYNTHETICS LTD. Udaipur, Rajasthan (P yarn)

INDONESIA

INDONESIA PENELITIAN SELULOSA (Cellulose Research Institute)

P.F. FIBRES e CHEMICALS
Nylon — (yarn)

P.T. BERKAT INDAH AGUNG
Rayon — Tangerang, West Java* (staple)

P.T. FILAMENDO SAKTI
Nylon 6 — Tangerang* (yarn)

P.T. INDO-BHARAT RAYON
Rayon — Desa Cilangkap, Purwakarta (yarn)

P.T. INDO RAMA SYNTHETICS
Rayon — Jatilurhur-Purwakarta (staple)
Acrylic — Jatilurhur-Purwakarta (staple)
Polyester — Jatilurhur-Purwakarta* (yarn & staple)

INDONESIA (continued)

P.T. INDONESIA ASAHI CHEMICAL
Nylon 6 — Jatiluhur, Purwakarta, West Java (yarn)

P.T. INDONESIA TORAY SYNTHETICS
Nylon 6 — Tangerang, West Java (yarn & staple)
Polyester — Tangerang (yarn & staple)

P.T. INDUSTRI SANDANG I
Polyester — Tangerang* (staple)

P.T. INDUSTRI SANDANG II
Rayon — South Sumatra* & West Kalimantan* (staple)

P.T. INTI
Rayon — West Kalimanton* (staple)

P.T. INTI INDAH RAYON UTAMA
Rayon — Sosorladang, N. Sumatra* (yarn)

P.T. KUMA FIBER (P.T. Kuraray Manunggal Fibre Industries)
Polyester — Cikokol, Tangerang, West Java (staple)

P.T. PAN ASIA SYNTHETIC ABADI
Polyester — Bandung (yarn & staple*)

P.T. POLYSINDO EKA PERKASA
Polyester — Kaliwungu, Kendal, C. Java (yarn & staple)

P.T. SHINTA-INDAH DJAYA
Nylon 6 — Tangerang, West Java (yarn)
Polyester — Tangerang *Shinta* (yarn)

P.T. SOUTH PACIFIC VISCOSE
Rayon — Purwakarta, West Java (staple)

P.T. SUSILIA INDAH SYNTHETIC FIBRES INDUSTRIES
Polyester — Djakarta*, Tangerang, West Java (yarn & staple)

P.T. TEXMACO TAMAN SYNTHETIC
Polyester — Kaliwungu Kendal, West Java (yarn)

P.T. TIFICO (P.T. Teijin Indonesia Fibre Corp.)
Polyester — Tangerang, West Java (yarn & staple)

P.T. TOLARAM
Polyester — (yarn)

P.T. TRI REMPOA SOLO SYNTHETIC
Polyester — Rempon, Tangerang, West Java (staple)

P.T. VASTEX PRIMA INDUSTRIES
Polyester — Jalan Gedebage Ujungberung Bandung (yarn)

P.T. YASINTA POLY
Nylon 6 — Tangerang* (yarn)
Polyester — Tangerang, West Java (yarn & staple*)

INDONESIA (continued)

P.T. YASEN PERSADA
Nylon 6 — Tangerang* (yarn)

RAUMAQ ENTERPRISES
Nylon — (yarn*)

OLEFIN FIBER

(in Riau, Central & West Java*)

IRAN

PARSYLON CORPORATION
Nylon 6 — Khoram-Abad (yarn)

POLYACRYL IRAN CORPORATION
Acrylic — Isfahan (staple)
Polyester — Isfahan (yarn & staple)

SHERKAT SAHAMI ALIAF
Nylon 6 — Tehran *Aliaf* (yarn)

OLEFIN FIBER

JAHANCITT SPINNING & WEAVING CO. Tehran (P film)

IRAQ

HINDIYA RAYON FACTORY
Rayon — Hindiya (reg yarn & staple)

OLEFIN FIBER

STATE ENTERPRISE FOR PLASTIC BAGS Tikrit

IRELAND

ASAHI SYNTHETIC FIBRES (IRELAND) LTD.
Acrylic — Ballina, Mayon *Cashmilon* (staple)

LIRELLE (IRELAND) LTD. (a division of Unifi, Inc.)
Polyester — Letterkenny *Lirelle* (yarn)

WELLMAN INTERNATIONAL LTD. (a division of Wellman Inc.)
Nylon 6/66 — Mullagh, Kells, Meath *Wellon* (staple)
Polyester — Mullagh *Filwell, Wellene* (staple)

OLEFIN FIBER

F. DRAKE (IRELAND) LTD. Moate, Westmeath (P staple)

J. & L.F. GOODBODY (SYNTHETICS) LTD. Clara, Offaly (P yarn & film)

IRELAND (continued)

OLEFIN FILM FIBER only

IRISH POLYSACKS LTD. Blarney, Cork

IRISH ROPES LTD. Newbridge, Kildare

POLYTEX LTD.

ISRAEL

NILIT
Nylon 66 — Migdal Ha-Emek (yarn)

ITALY

ALCANTARA S.p.A.
Polyester — Narni, Umbria (microfibrous material)

AQUAFIL S.p.A.
Nylon 6 — Arco di Trento, Trentino *Aqualon* (yarn)
Polyester — Arco di Trento (yarn)

BEMBERG S.p.A.
Nylon 6 — Gozzano, Piemonte *Ortalion* (yarn)
Cupro — Gozzano *Bemberg* (yarn)

CARPOL S.p.A.
Nylon 6 — Forli, Emilia Romagna (yarn)

ENICHEM FIBRE S.p.A.
Acrylic — Ottana & Porto Torres, Sardegna *Euroacril, Sironil* (staple & tow)
Polyester — Ottana *Fidion, Fidion FR* (staple & tow)

FIBRE ACRILICHE S.r.l.
Acrylic — Cesano Maderno, Lombardia, Villacidro, Sardegna *Velicren, Velicren FR* (staple & tow)

FIBRE POLIESTERE S.r.l.
Polyester — Napoli, Campania *Wistel, Wistel TM* (yarn)

FILANDA 1992 S.p.A.
Polyester — Treviglio, Lombardia (yarn)

FILATURA DI VAL LESINA S.p.A.
Polyester — Andalo Valtellino, Lombardia *Valena* (yarn)

FIMALON S.p.A.
Nylon 66 — Castelnuovo Valsugana, Trentino Alto Adige (yarn)

FORTEX SIDAC S.p.A.
Nylon 6 — Forli, Emilia Romagna *Forlion* (yarn)

INDUSTRIE TESSILI VERCELLI S.p.A.
Acetate — Vercelli, Piemonte (yarn)

ITALY (continued)

LIBA S.p.A.
Nylon 6 — Pisticci, Lucania *Nivion* (yarn & staple)

MIROGLIO TESSILE S.p.A.
Polyester — Alba, Piemonte (yarn)

MONTEFIBRE S.p.A.
Acrylic — Porto Marghera, Veneto *Leacril* (staple & tow)
Polyester — Acerra, Campania *Terital* (yarn, staple & tow), *Terital Zero .4* (microfilament yarn), *Terital Microspun* (microfilament staple)

NOVACETA S.p.A.
Acetate — Magenta, Lombardia (yarn)

NUOVA RAYON ITALIA S.p.A.
Rayon — Rieti, Lazio (reg yarn)

RADICI FIL S.p.A.
Nylon 6 — Casnigo, Lombardia (yarn)

SETTE STELLE S.p.A.
Nylon 6 — Castelgoffredo, Lombardia (yarn)

SNIA FIBRE S.p.A.
Nylon 6/66 — Castellaccio, Lazio; Cesano Maderno & Varedo, Lombardia; Villacidro, Sardegna; Napoli, Campania *Coro Lilion Souple, Lilion Styl* (yarn, staple & tow)
Poliossiamide — Cesano Maderno *Vivrelle* (staple)

SOCIETA INDUSTRIALE CREMONESE S.p.A.
Rayon — Pizzighettone, Lombardia (ind yarn)

STERE
Polyester — Cardano al Campo, Lombardia (yarn)

TERBOND S.p.A.
Polyester — Pisticci, Lucania *Terbond* (spunbonded)

TEXPRO 2 S.p.A.
Nylon 6 — Canapale, Toscana *Frankilon* (yarn)
Polyester — Canapale *Frankilene* (yarn)

TEXTILE PRODUKTE S.p.A.
Nylon 6 — Villa D'Ogna, Lombardia (yarn & staple)

TORCITURA DI BORGOMANERO S.p.A.
Nylon 6 — Milano, Lombardia *Borgolon* (yarn)

OLEFIN FIBER

EUROFIL Gandino, Lombardia (P staple)

FILATURA DI DELEBIO S.p.A. Delebio, Lombardia *Delebion* (P yarn)

FILLI FRANA Casnigo, Lombardia (P staple & film)

I.T.S. Legnano, Lombardia (P yarn)

ITALY (continued)

MOPLEFAN (formerly Himont Italia S.p.A.)
Terni, Umbria *Meraklon* (P yarn & staple)

M.R. 81 Grassobbio, Lombardia (P yarn)

NOVASAR Caronno Pertusella, Lombardia (P yarn & staple)

POLYMECON Zibido S. Giacomo, Lombardia (P staple & tow)

SERGEL Casnigo, Lombardia (P staple)

TEXTILE PRODUKTE Villa D'Ogna, Lombardia (P staple)

OLEFIN FILM FIBER, only

CARPET BACKING S.p.A. Ceniga

DE MAGISTRIS EMILIO Bagnolo Cremasco

LICANA NORD S.p.A. Cassano d'Adda (Milano)

MILANPLAST S.r.l. Milano

MOPLEFAN S.p.A. Milano

NEOFIBRE S.r.l. Lendinara

SACHIM (MUMMOLO) Bari

S.E.A.L. S.p.A. Milano

S.I.S.A.L. S.p.A. Piacenza

STIROSIR S.p.A. Milano

TESSITURA LOMBARDA DI CONSONNI ELIA ALBIATE

GLASS FIBER

VETROTEX ITALIA S.p.A. Besana Brianza, Lombardia (mat), Fibras Di Rinforzo *VETROTEX*

VITROFIL S.p.A. Vado Ligure, Liguria

JAPAN

ASAHI CHEMICAL INDUSTRY CO., LTD.
Acrylic — Fuji *Cashmilon, Pewlon* (yarn & staple)
Nylon 6/66 — Nobeoka & Moriyama *Asahi Kasei Nylon, Leona* (yarn, monofil & spunbonded)
Polyester — Nobeoka & Moriyama *Asahi Kasei Ester* (yarn & spunbonded)
Rayon — Nobeoka (reg & cupra yarn, cupra staple & cupra spunbonded)
Saran — Suzuka (yarn, monofil & staple)
Spandex — Moriyama *Roica*

JAPAN (continued)

DAICEL CHEMICAL INDUSTRIES, LTD.

Acetate	Sakai & Aboshi *Cigatow* (tow)

DAIWABO RAYON CO., LTD.

Rayon	Masuda (staple)

FUJI SPINNING CO., LTD.

Rayon	Toyo (staple)
Spandex	Kozakai *Fujibo Spandex*

JAPAN EXLAN CO., LTD.

Acrylic	Saidaiji *Exlan* (staple)

KANEBO, LTD.

Acrylic	Hofu *Kanebo Acryl* (staple)
Nylon 6	Hofu *Kanebo Nylon* (yarn)
Polyester	Sabae *Kanebo Polyester* (yarn)
Spandex	Hofu *Kanebo Loobell*

KANEGAFUCHI CHEMICAL INDUSTRY CO., LTD.

Modacrylic	Takasago *Kanecaron, Kanekalon* (staple & tow)

KOHJIN CO., LTD.

Polychlal	Yatsushiro *Cordelan* (staple)
Rayon	Yatsushiro (staple)

KURARAY CO., LTD.

Polyester	Saijo & Tamashima *Kuraray Polyester* (yarn & staple)
Rayon	Saijo & Tamashima *Three Golden Horses* (reg yarn)
Vinal	Okayama *Kuralon* (yarn & staple)

KUREHA CHEMICAL INDUSTRY CO., LTD.

Saran	Mibu *Krehalon* (yarn, monofil & staple)
Vinyon	Mibu *Viclon* (monofil)

MITSUBISHI RAYON CO., LTD. •

Acetate	Toyama (yarn & tow)
Acrylic	Otake *Finel, Silpalon, Vonnel* (yarn & staple)
Polyester	Toyohashi *Soluna* (yarn)
Triacetate	Toyama (yarn)

NIPPON ESTER CO., LTD. (subsidiary of Unitika, Kanebo and Mitsubishi Chemical Industry)

Polyester	Okazaki & Sabae *Unitika Ester, Kanebo Ester* (yarn & staple)

NISSHINBO INDUSTRIES, INC.

Rayon	Tokushima (staple)
Spandex	Tokushima *Mobilon*

NITIVY CO., LTD.

Vinal	Fujieda *Niti-Vilon, Solvron, Vilon* (yarn)

OMIKENSHI CO., LTD.

Rayon	Kakogawa (yarn & staple)

JAPAN (continued)

TEIJIN LTD.

Acetate	Matsuyama *Teijin-Acetate* (yarn)
Aramid	Iwakuni & Matsuyama *Teijinconex, Technora* (yarn & staple)
Nylon 6	Mihara *Teijin Nylon* (yarn)
Polyester	Iwakuni, Matsuyama & Tokuyama *Trevira cs, Teijin-Tetoron* (yarn & staple)
Vinyon	Iwakuni *Teviron* (yarn)

TOHO RAYON CO., LTD.

Acrylic	Mishima *Beslon* (staple & tow)
Rayon	Tokushima *Tovis* (staple)

TORAY-DU PONT COMPANY LTD.

Spandex	Shiga *Opelon* (fused multifil)

TORAY INDUSTRIES, INC.

Acrylic	Ehime *Toraylon* (staple)
Nylon 6	Aichi, Ishikawa*, Nagoya, Okazaki & Shiga *Amilan, Toray Nylon* (yarn & staple)
Nylon 6/66 copolymer	Aichi *Tapilon* (yarn)
Nylon 66	Aichi, Ishikawa & Okazaki *Promilan* (yarn)
Polyester	Ehime, Ishikawa, Mishima & Okazaki *Toray Tetoron* (yarn & staple)

TORAY-MONOFILAMENT CO., LTD.

Nylon 6	Okazaki *Toray Nylon* (monofil)

TOYO CHEMICAL CO., LTD.

Vinyon	Ofuna *Envilon* (yarn & monofil)

TOYOBO CO., LTD. •

Nylon 6	Tsuruga *Toyobo Nylon* (ind & reg yarn)
Polyester	Iwakuni & Tsuruga *Toyobo Ester* (ind & reg yarn, staple & spunbonded)
Promix	Tsuruga *Chinon* (yarn)
Rayon	Iwakuni *Tufcel* (staple)
Spandex	Tsuruga *Espa*

UNITIKA LTD.

Nylon 6	Uji *Unitika Nylon* (yarn, monofil & staple)
Polyester	Okazaki *Unitika Ester* (ind yarn) *Marix* (spunbonded)
Rayon	Uji *Blackbird* (reg yarn)
Vinal	Sakoshi (Akoh City) *Mewlon* (yarn, monofil & staple)

YOSHIDA KOGYO K.K.

Polyester	Kurobe (yarn)

OLEFIN FIBER

ASAHI CHEMICAL INDUSTRY CO., LTD. Moriyama (P spunbonded)

CHISSO POLYPRO FIBER CO., LTD. Moriyama *Chisso Polypro, ES Fiber* (P yarn & staple)

JAPAN (continued)

DAIWABO CO., LTD. Harima *Daiwabo Polypro, NBF Fiber* (E & P staple)

HAGIHARA INDUSTRY CO., LTD. Kurashiki (E monofil & film)

HIRATA SPINNING CO., LTD. Yokkaichi *Hiralon* (E & P yarn & monofil)

INABA SEIKO, LTD. Gamagori (E monofil)

KANEYA SEIKO, LTD. Hokkaido & Kushiro (E & P monofil)

MARUAI CO., LTD. Toyohashi (E monofil)

MITSUBISHI RAYON CO., LTD. Toyohashi *Mitsubishi Pylen* (P yarn)

NAGANO KAKO CO., LTD. Nagano (E monofil)

SHOWA POLYMER CO., LTD. Ibaraki (E monofil & film)

SUNREX INDUSTRY CO., LTD. Yokkaichi (E monofil & P spun-bonded)

TAI-RAY CO., LTD. Mito *Danzex, Danzex Lite, Liplon* (E monofil, P yarn & monofil)

TANIYAMA CHEMICAL INDUSTRY CO., LTD. Okayama *Tanikalon* (E monofil)

TOA WOOL SPINNING & WEAVING CO., LTD. Tomari *Toabo Polypro* (P staple)

TONEN TAPYRUS CO., LTD. Tokyo *Tapyrus* (P meltblown)

TOYOBO CO., LTD. Iwakuni (P staple)

UBE-NITTO KASEI CO., LTD. Fukuyama & Gifu *Bulkilon-F, Danline,Sun Line, Super Danline, Ube-Nitto Polypro, UNK UC Fiber* (E & P monofil & P yarn & E & P staple)

OLEFIN FILM FIBER, only

DAIDO KASEI Osaka

FUJIMOTO SANGYO Osaka

OKAMOTO CHEMICAL Ehime

SAKAI KASEI Osaka

SANTO CHEMICAL Aichi

SEKISUI CHEMICAL Amagasaki & Nara

TOYAMA Chiba

TOYO SODA Yokkaichi

WAKO SPINNING CO. Gifu

JAPAN (continued)

YAMAJIN TEXTILE Fukui

GLASS FIBER

ASAHI FIBER GLASS CO., LTD. Ibaraki & Shonan *Glasslon*

ASAHI-SCHWEBEL CO., LTD. Moriyama

CENTRAL GLASSFIBER CO., LTD. Matsusaka

FUJI FIBER GLASS CO. Moka

KANEBO, LTD. Gunma *Textoglass*

NIPPON ELECTRIC GLASS CO. Notogawa

NIPPON GLASS FIBER CO., LTD. Tsu *Micro Glass*

THE NIPPON MINERAL FIBER MFG. CO. Tarui & Yuki *Superfine*

NITTO BOSEKI CO., LTD. Fukushima *Iceberg*

UNITIKA U.M. GLASS CO., LTD. Kyoto

KENYA

JAYDEES KNITTING FACTORY LTD.
Nylon — Nairobi (yarn)
Polyester — Nairobi (yarn)

KENYA FIBRE CORPORATION LTD.
Polyester — Nanyuki (yarn & staple)

KISUMU COTTON MILLS (1983) LTD.
Polyester — Kisumu (yarn)

NAKURU INDUSTRIES
Polyester — (yarn)

SUNFLAG SPINNING MILLS LTD.
Polyester — Nairobi (yarn)

SYNTHETIC FIBER (K) LTD.
Nylon 6 — Thika (yarn)
Polyester — Thika (staple)

OLEFIN FIBER

UNISACK LTD. Thika (P film)

KOREA PEOPLE'S DEMOCRATIC REPUBLIC OF (NORTH)

A number of manufactured fiber plants are said to be operating in North Korea (see June 1970 ***Organon*** issue, page 113); however, no data for this country are recorded in any table of this issue due to lack of reliable information.

KOREA REPUBLIC OF (SOUTH)

CHEIL SYNTHETIC INC.
Polyester — Kumi *Eslon* (yarn & staple)
Spandex — Kumi (yarn)

DAEHAN SYNTHETIC FIBER COMPANY
Polyester — Ulsan *Acelan* (yarn & staple)

GORYEO NYLON CORPORATION LTD.
Nylon 6 — Kyungsan *Kolon* (yarn)

HANIL SYNTHETIC FIBER INDUSTRIAL COMPANY
Acrylic — Masan *Hanilon* (staple)

HAN KOOK FIBERS COMPANY LTD.
Polyester — Kumi (yarn)

JEIL SYNTHETIC FIBERS COMPANY
Polyester — Seoul *Oplon* (yarn)

KOHAP, LTD.
Nylon 6 — Shihung *Palmylon* (yarn & staple)
Polyester — Shihung *Palmylon* (yarn & staple)
Spandex — Shihung *Kopandex* (yarn)

KOLON INDUSTRIES INC.
Nylon 6/66 — Kumi, Taegu *Kolon* (yarn)
Polyester — Kumi *Kolon* (yarn)

SAMYANG COMPANY
Polyester — Chunju *Triron* (yarn & staple)

SUNKYONG INDUSTRIES LTD.
Acetate — Suwon *Sunkong* (yarn & tow)
Polyester — Suwon & Ulsan *Sunkong* (yarn & staple)

TAEKWANG INDUSTRIAL COMPANY LTD.
Acrylic — Ulsan *Acelan* (staple)
Nylon 6 — Ulsan* (yarn)
Spandex — Ulsan *Acelan* (yarn)

TONGKOOK SYNTHETIC FIBRES CO.
Polyester — Kumi *Texlon* (yarn)
Spandex — Kumi (yarn)

TONGYANG NYLON COMPANY
Nylon 6/66 — Anyang & Ulsan *Toplon* (yarn)
Polyester — Ulsan *Toplon* (yarn)

TONGYANG POLYESTER COMPANY LTD.
Polyester — Ulsan *Toplon* (yarn)
Spandex — (yarn*)

WONJIN RAYON COMPANY LTD.
Rayon — Donong *Coray* (reg yarn) & (staple idle)

OLIFIN FIBER

KOLON INDUSTRIES INC. (staple)

LIBYA

LIBYA NATIONAL OIL CORPORATION (LINOCO)
Nylon 6 — Marsa Al-Brega* (yarn)
Polyester — Marsa Al-Brega* (staple)

LUXEMBOURG

TECHNOFIBRES
Polyester — Mertert (yarn)

Production and capacity data are combined with Belgium and the Netherlands under "Benelux" on pages 112 - 113.

OLEFIN FIBER

DU PONT FIBRES S.A. Contern-Hesperange *Typar* (P spunbonded)

MALAYSIA

ALIFFIL SYNTHETIC FIBRE SDN. BHD.
Polyester — Penang (yarn)

ALLIED MALAYAN TEXTILE BHD.
Rayon — Penang *Teteron* (yarn)

ARAB-MALAYSIAN DEVELOPMENT BHD.
Rayon — Perak *Teteron* (yarn)

CHEMPAKA NEGRI LAKSHMI TEXTILES SDN. BHD.
Polyester — Negeri *Sembilan* (yarn)
Rayon — Negeri *Teteron* (yarn)

HING YIAP FIBREMAKERS
Polyester — Johor (yarn)

KWALITY TEXTILES (M) SDN. BHD.
Polyester — Kedah *Teteron* (yarn)
Rayon — Kedah *Teteron* (yarn)

MWE SPINNING MILLS SDN. BHD.
Polyester — Penang *Teteron* (yarn)
Rayon — Penang *Teteron* (yarn)

PENFIBRE SDN. BHD.
Nylon — Penang* (staple)
Polyester — Penang (yarn & staple)

QUALINIT SDN. BHD.
Polyester — Penang (yarn)

SOUTEX SENDIRIAN BERHAD
Polyester — Batu Pahat (yarn & staple)

SOUTH ASIA FIBRE INDUSTRIES SDN. BHD.
Polyester — Perak (yarn)

TEXFIBRE (SELANGOR) SDN. BHD.
Polyester — Kuala Lumpur (yarn)

MALAYSIA (continued)

TOOTAL THREAD MALACCA SDN. BHD.
Polyester — Malacca (yarn)

VERTEX FIBRE SDN. BHD.
Nylon — Perak* (yarn)

MALTA

NYLON KNITTING CO. LTD.
Nylon 6 — Qormi (yarn)

Production and capacity data are combined with Italy.

MEXICO

CELANESE MEXICANA, S.A.
Acetate — Ocotlán, Jalisco (yarn & staple)
Nylon 6 — Ocotlán & Toluca, México *Duracel, Nycel* (yarn & staple)
Polyester — Ocotlán, Querétaro & Toluca *Crolan* (yarn & staple)

CELULOSA Y DERIVADOS, S.A.
Acrylic — Atequiza, Jalisco *Crysel* (staple, tow & tops)
Rayon — Monterrey, Nuevo León (ind & reg yarn)

FIBRAS NACIONALES DE ACRILICO, S.A. (formerly FINACRYL)
Acrylic — Altamira (staple, tow & tops)

FIBRAS QUIMICAS, S.A.
Nylon 6 — Monterrey, Nuevo León *Supernylon Cydsa* (yarn & monofil)
Polyester — Monterrey *Terlenka* (yarn)

FIBRAS SINTETICAS, S.A.
Acrylic — Cotaxtla, Veracruz *Fisisa* (staple, tow & tops)
Nylon 6 — Mexico, D.F. *Fisisa* (yarn & monofil)
Polyester — Cotaxtla & México City *Fisisa* (yarn & staple)

FIBRASOMNI, S.A.*
Nylon 6 — Ixtapalapa, D.F. *Omni-Nylon* (monofil)
Saran — Ixtapalapa *Omni-Saran* (monofil)

INDUSTRIAS PETROQUIMICAS MEXICANAS, S.A.
Polyester — El Salto, Jalisco *Inpetmex* (yarn)

KIMEX S.A.
Nylon 6 — Tlalnepantla, México *Aztecron* (yarn)
Polyester — Tlalnepantla *Kintrel* (yarn)

NYLON DE MEXICO, S.A.
Nylon 6 — La Leona, Nuevo León *Nylfil* (yarn & staple)
Polyester — La Leona *Delcron* (yarn, staple, tow & fiberfill)
Spandex — La Leona *Likra* (fused multifil)

MEXICO (continued)

PLASTICA MODERNA, S.A. DE C.V.
Nylon 6 — Tlalpan, D.F. *Perlux* (monofil)

PRODUCTOS PLASTICOS DE PUEBLA, S.A.
Nylon 6 — Puebla, Puebla *Prolon* (monofil)

OLEFIN FIBER

FIBRASOMNI, S.A. Ixtapalapa, D.F. *Politen-Omni* (E monofil), *Polyprop-Omni* (P yarn & monofil)

INDUSTRIAS POLIFIL, S.A. Ixtacuixtla, Tlaxcala *Pliane* (P yarn & staple)

PLASTICOS INDUSTRIALIZADOS, S.A. Monterrey, Nuevo León (P staple)

OLEFIN FILM FIBER, only

HILOS Y CORDELES, S.A. Tlalnepantla, México

PLASTICEL, S.A. Monterrey, Nuevo León *(Plasticel)*

POLISAC, S.A. (affiliate of Nylon de México, S.A.)
Guadalajara, Jalisco *(Polisac)*

GLASS FIBER

VITRO-FIBRAS, S.A. Zacatenco, D.F. *Vitrofibras*

NETHERLANDS

AKZO FIBRES AND POLYMERS DIVISION, ENKA bv
Aramid — Deltzijl*, Emmen *Twaron* (yarn)
Nylon 6 — Emmen *Enka, Enkastat, Enkalon* (yarn)
Polyester — Emmen *Diolen* (yarn & staple)
Rayon — Arnhem & Ede *Cordenka, Enka Viscose* (ind & reg yarn)

DU PONT DE NEMOURS (NEDERLAND) N.V.
Spandex — Dordrecht *Lycra* (fused multifil)

OLEFIN FIBER

LANKHORST TOUWFABRIEKEN B.V. Sneek *Tiptolene* (E monofil & P film)

T.T.C. POLYOLEFINS B.V. Nijverdal (P monofil, film & staple)

N.V. VERTO Rotterdam (P film)

GLASS FIBER

SILENKA B.V. Hoogezand (Groningen) *Silenka*

Artificial (cellulosic) production and capacity data are combined with Belgium on pages 116 - 117. Synthetic (noncellulosic) production and producing capacity data are combined with Belgium and Luxembourg under "Benelux" on pages 112 - 113.

NICARAGUA

OLEFIN FIBER

MANUFACTURERA CENTRO AMERICANA S.A. (MACEN)
Managua (P film)

NIGERIA

ALKEM NIGERIA LIMITED
Polyester — Lagos (staple)

BHOJSON'S GROUP
Polyester — Apapa, Lagos (yarn)

CENTURY SPINNING (NIGERIA) LTD.
Polyester — Lagos* (staple)

HORIZON FIBRES (NIGERIA) LTD.
Polyester — Port Harcourt *River State* (yarn & staple)

INTEGRATED FIBERS
Polyester — Kano* (yarn)

NICHEMTEX INDUSTRIES LTD.
Polyester — Ikordu, Lagos *Nigerlene* (yarn & staple)

SPINTEX MILLS (NIGERIA) LIMITED
Polyester — Ikordu, Lagos (yarn)

NORWAY

OLEFIN FIBER

A/S PLATON, AVD. TEKSTIL Notodden *Filmtex* (E & P film)

NORFIL-NORPACK A/S Stavern, near Larvik *Akvaflex* (P yarn, E & P monofil & film)

STAL OG TAU Tonsberg *Norseflex* (P film)

GLASS FIBER

NORSK GLASSFIBER A/S Birkeland

PAKISTAN

BENGAL FIBER INDUSTRIES, C/O BENGAL OIL MILLS LIMITED
Nylon 6 — Karachi *Nylpak* (yarn)
Polyester — Karachi (yarn & staple)

DILON LIMITED
Nylon 6 — Landhi *Dilon* (yarn)
Polyester — (yarn*)

GATRON INDUSTRIES LIMITED
Polyester — Hub Chowki (yarn)

HASHWANI GROUP
Polyester — Sind Province (yarn)

PAKISTAN (continued)

ICI PAKISTAN MANUFACTURERS LTD.
Polyester — Lahore *Tere-Pak* (staple)

NATIONAL FIBERS LIMITED
Polyester — Korangi, Karachi (yarn & staple)

NILOM NYLON MILLS LIMITED
Nylon 6 — Lyallpur *Nilom* (yarn & monofil)

PAK FIBRE INDUSTRIES LIMITED
Polyester — Hub Chowki (yarn)

POLYTEX
Polyester — (yarn)

RAVI RAYON LIMITED
Acetate — Kala Shah Kaku, Sheikhupura District *Krasil* (yarn)

RUPALI POLYESTER LIMITED
Polyester — Karachi Lahore (yarn & staple)

S.G. RAYON MILLS LIMITED
Polyester — Karachi Lahore (yarn)

SYNTHETIC POLYLON
Polyester — Katri (yarn), Hub Chowki (staple)

OLEFIN FIBER

(P yarn & staple*)

PERU

BAYER INDUSTRIAL S.A.
Acrylic — Lima *Dralon* (staple)

FILAMENTOS INDUSTRIALES, S.A.
Nylon 6 — Lima* (yarn)
Polyester — Lima (yarn)

IBELTEX S.A.
Modacrylic — Lima (staple)

MANUFACTURA NYLON S.A.
Nylon 6 — Vitarte, near Lima (yarn)
Polyester — Vitarte *Diolen* (staple)

MANUFACTURAS DEL SUR S.A.
Nylon 6 — Arequipa *Long Life, Mistilon* (yarn)
Polyester — Arequipa (yarn & staple)

RAYON INDUSTRIAL S.A.
Acetate — Lima (yarn)
Nylon — Lima (staple)
Polyester — Lima *Forcel* (yarn, staple, tow & tops)

RETEX PERUANA, S.A.
Nylon 6 — Ventanilla, Callao (yarn)

PERU (continued)

OLEFIN FILM FIBER, only

NORSAC S.A. Trujillo

POLICEL DEL PERU S.A. Lima

SACOS DEL SUR S.A. Arequipa

SACOS PISCO S.A. Pisco

PHILIPPINES, REPUBLIC OF THE

FIBERTEX CORPORATION, INC.
Nylon 6 — Taytay, Rizal *Texfiber* (yarn)

FILIPINAS SYNTHETIC FIBER CORPORATION
Polyester — Sta. Rosa, Laguna *Tetelin* (yarn & staple)

HI-LON MANUFACTURING CORPORATION
Nylon 6 — Calamba, Laguna *Philippine Polyamide* (yarn)

INDOPHIL FIBER CORPORATION
Rayon — Manila (staple)

LAKEVIEW INDUSTRIAL CORPORATION
Polyester — Carmona, Rizal *Licron* (yarn & staple) (idle)

OLEFIN FIBER

INDUSTRIAL TEXTILE MANUFACTURING CO. (ITEMCOP)
Mandaluyong, Rizal (P film)

MANILA CORDAGE COMPANY Manila (P film)

POLAND

CHODAKOWSKIE ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX"
Rayon — Sochaczew (reg yarn)

WROCŁAWSKIE ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX"
Rayon — Wroclaw (reg yarn)

ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX-ANILANA"
Acrylic — Łódz *Anilana* (staple)
Azlon — Łódz *Wipolan* (staple, casein base)

ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX-CELWISKOZA"
Polyester — Jelenia Góra *Elana* (staple)
Spandex — Jelenia Góra (pilot plant) *Elaston* (yarn)

ZAKŁADY WŁOKIEN CHEMICZNYCH "ELANA"
Polyester — Torun, Bydgoszcz *Torlen* (yarn), *Elana* (staple)

POLAND (continued)

ZAKŁADY WŁOKIEN CHEMICZNYCH "STILON"
Nylon 6 — Gorzów Wielkopolski *Lanastil, Stilon* (yarn), *Polana* (staple)

ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX-WISKORD" •
Rayon — Szczecin-Zydowce (reg yarn)

ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX-WISTOM"
Rayon — Tomaszów Mazowiecki, Lódz (ind & reg yarn & staple)

OLEFIN FIBER

ZAKŁADY PRZEMYSŁU LNIARSKIEGO LENKO Bielsko-Biala (P film)

ZAKŁADY PRZEMYSŁU LNIARSKIEGO SKARBKOW Mirsk, Wroclaw (P staple)

ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX-WISKORD" Szczecin-Zydowce (P staple)

GLASS FIBER

KROSNIENSKIE HUTY SZKŁA Krosno

ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX-ANILANA" Łódz *Polsilon*

PORTUGAL

FIBRAS SINTÉTICAS DE PORTUGAL, S.A.R.L. (FISIPE)
Acrylic — Lisbon *Vonnel* (staple, tow & tops)

HOECHST FIBRAS S.A.
Polyester — Portalegre, Alto Alentejo *Trevira* (staple)

HOECHST PORTUGUESA S.A.R.L.
Nylon — Porto (monofil)

TÊXTIL ARTIFICIAL DO PORTO, LDA.
Rayon — Porto (reg yarn)

OLEFIN FIBER

ALICATIFAS DA LOUSA (P staple)

FERCOL (P staple)

LUSOTUFO (P staple)

QUIMIGAL - QUIMICA DE PORTUGAL, E.P. Barreiro (P staple & film)

PORTUGAL (continued)

OLEFIN FILM FIBER, only

CERFIL Maia - Douro

CORDEX - COMPANHIA INDUSTRIAL TEXTIL, S.A.R.L.
Esmoriz

COTESI - COMPANHIA DE TEXTEIS SINTETICOS S.A.R.L.
Carvalhos

EUROFIL - INDUSTRIAS DE PETROLEOS PLASTICOS E FILAMENTOS, S.A.R.L. Lisbon

FABRICA DE TAPETES VITÓRIA Mira d'Aire

FERNANDES & COSTA, LDA. Seia

MANUEL RODRIGUES DE LIMA & FILHOS Cortegaca

MANUEL RODRIGUES D'OLIVEIRA, S.A. LDA. M. Maia

QUINTAS & QUINTAS Povoa de Varzim

SICOR - SOCIEDADE INDUSTRIAL DE CORDOARIA S.A.R.L.
Cortegaca

GLASS FIBER

QUIMIGAL - QUIMICA DE PORTUGAL, E.P. Barreiro

ROMANIA

CIMBINATUL DE FIBRE SINTETICE CIMPULUNG MUSCEL
Polyester — Near Brasov (yarn)

COMBINATUL DE FIBRE ARTIFICIALE
Rayon — Braila, Dej* & Suceava* (ind yarn & staple)
Polyester — Vaslui (yarn)

FABRICA DE FIBRE ARTIFICIALE "VISCOFIL"
Rayon — Popesti-Leordeni, near Bucuresti (reg yarn)

FABRICA DE FIBRE ARTIFICIALE "VISCOZA"
Rayon — Lupeni (reg yarn)

INTREPRINDERA DE FIBRE SINTETICE CORABIA
Polyester — North of Pleven (yarn)

UZINA DE FIBRE SINTETICE IASI
Polyester — Iasi *Teron* (yarn, staple, tow & tops)

UZINA DE FIBRE SINTETICE SAVINESTI
Acrylic — Savinesti, near Piatra Neamt (Bacau Region) *Melana* (staple & tops)
Nylon 6 — Savinesti *Relon* (yarn & staple)

SAUDI ARABIA

SAUDI TEXTILE INDUSTRIES
Polyester — El Astra* (staple)

SOUTH AFRICA, REPUBLIC OF

BELGOTEX (Beaulieu Group)
Nylon 6 — (yarn)

CONSOLIDATED TEXTILE MILLS (part of Frame Group of Companies)
Polyester — Jacobs, Natal (yarn & staple - captive)

HOECHST SOUTH AFRICA (PTY.) LTD.
Polyester — Milnerton, Cape Province *Trevira* (staple)

ROMATEX MILLS *
Nylon 6 — Jacobs, Natal (staple)

SOUTH AFRICAN NYLON SPINNERS (PTY.) LIMITED
Nylon 66 — Bellville, Cape Province *Bri-Nylon* (yarn)
Polyester — Bellville & Hammarsdale, Natal *Terylene* (yarn)

OLEFIN FIBER

ROMATEX MILLS Jacobs, Natal (P film & staple)

SPAIN

BRILEN S.A.
Polyester — Barbastro, Huesca & Igualada, Barcelona (yarn & staple)

COURTAULDS FIBRES S.A.
Acrylic — Prat de Llobregat, Barcelona *Courtelle* (staple & tow)

DF FIBER S.A.
Nylon 66 — Vendrell, Tarragona

INDUSTRIAS DEL ACETATO DE CELULOSA, S.A. (INACSA)
Acetate — La Batlloria, Barcelona (yarn)

INDUSTRIAS QUIMICAS TEXTILES S.A. (INQUITEX)
Nylon 6 — Andoain, Guipuzcoa *Carbyl, Nylhair, Trinyl* (yarn & staple)

LA SEDA DE BARCELONA, S.A.
Nylon 6 — Alcalá de Henares, Madrid *Dayan, Enkalon* (yarn & staple)
Polyester — Prat de Llobregat, Barcelona *Terlenka* (yarn & staple)
Rayon — Prat de Llobregat (reg yarn)

MONTEFIBRE HISPANIA S.A.
Acrylic — Miranda de Ebro, Burgos *Leacril* (staple)

NUREL S.A.
Nylon 6 — Zaragoza, Zaragoza *Nurel* (yarn & staple)
Polyester — Zaragoza *Terylene* (yarn & staple)

SPAIN (continued)

RHÔNE-POULENC FIBRAS S.A. (formerly SOCIEDAD ANONIMA DE FIBRAS ARTIFICIALES (SAFA)

Nylon 66	Blanes & San Julian de Ramis, Gerona *SAFA* (yarn & staple)
Polyester	Blanes *Tergal, Teriber* (yarn)

SOCIEDAD NACIONAL DE INDUSTRIAS APLICACIONES CELULOSA ESPANOLA, S.A. (SNIACE)

Nylon 6	Torrelavega, Santander *Lilion* (yarn)
Rayon	Torrelavega (staple)

OLEFIN FIBER

PAULAR, S.A. - EMPRESA PARA LA INDUSTRIA QUIMICA Puertollano, C.R. *Istrakin* (P monofil & film)

PROFILEX (P staple)

PROPILAN (P staple)

SERINA TEXTIL (P staple)

SOCIEDAD ANONIMA ITALO ESPANOLA (SAITES) Sabadell, Barcelona (P staple & film)

TEXTILE ARMENGOL Bruch, Barcelona (P staple & film)

OLEFIN FILM FIBER, only

CONDEROLS S.A. Granada

CORDELERIAS BARAS S.A. Gijon, Asturias

CORDELERIAS MAR S.A. Vigo, Pontevedra

HILATURAS Y CORDELERIA S.A. - "HILCOSA" Barcelona

HIRESA Callosa de Segura, Alicante

YUTE INDUSTRIAL S.A. Valencia

GLASS FIBER

CRISTALERIA ESPANOLA - DIVISION FIBRA DE REFUERZO Alcalá de Henares, Madrid *Fibra de Refuerzo VETROTEX*

SRI LANKA

CEYLON PETROCHEMICAL CORPORATION

Nylon 6	Sapugaskan (yarn & monofil)

SWEDEN

SVENSKA RAYON AKTIEBOLAGET

Rayon	Alvenäs, Valberg (staple)

OLEFIN FIBER

SONDEX AB Malmö *Laveten* (E & P monofil)

SWEDEN (continued)

GLASS FIBER

SCANDINAVIAN GLASFIBER AKTIEBOLAG Falkenberg

SWITZERLAND

EMS INDUSTRIES, LTD.

Nylon 6	Ems, Graubünden *Grilon* (staple)
Polyester	Domat/Ems *Grilene* (staple)

NOYFIL S.A.

Nylon 6	Stabio (yarn)
Polyester	Stabio (yarn)

RHONE-POULENC VISCOSUISSE A.G.

Nylon 6/66	Emmenbruecke, Luzern & Widnau, St. Gallen *Nylsuisse, Flixor* (yarn & staple)
Polyester	Widnau *Tersuisse* (yarn)

OLEFIN FILM FIBER, only

AROVA SCHAFFHAUSEN A.G. Schaffhausen

POLY-STEGN A.G. Flurlingen

VOGT & CO. Reinach

TAIWAN

ACELON CHEMICALS & FIBER CORPORATION

Nylon 6	*Acelon* (yarn)

CHAIN YARN CO., LTD.

Nylon	*CHAINLON* (yarn)

CHI YUAN FIBER MILLS

Nylon	Tao Yuan *Jamlon* (staple & tow)

CHINA MAN-MADE FIBER CORPORATION

Rayon	Tou Fen *Empress* (reg yarn & staple)

CHUNG SHING TEXTILE CO., LTD.

Nylon 6	Tao Yuan *Tasinlon, Three Gun* (yarn)
Polyester	Tao Yuan *Tasinlon* (yarn & staple)

FAR EASTERN TEXTILE LTD.

Polyester	Hsin Chu *Eastlene, Eastlon* (yarn & staple)

FORMOSA CHEMICALS & FIBRE CORPORATION

Nylon 6	Chang Hwa *Sunylon* (yarn)
Rayon	Chang Hwa & Longder *Tairiyon* (yarn & staple)

FORMOSA PLASTIC CORPORATION (part of Formosa Plastics Group)

Acrylic	Kaohsiung & Lanchu *Tairylan* (staple, tow & tops)

HUALON CORPORATION

Nylon 6	Chungho, Tao Yuan & Tou Fen (yarn)
Polyester	Chungho, Tou Fen & Yim Kao *Hualon* (yarn & staple)

TAIWAN (continued)

HUNG CHOU CHEMICAL INDUSTRY COMPANY, LTD.
Polyester — Kwei Shan *Hunvira* (yarn)

JANG DAH NYLON INDUSTRIAL CORP., LTD.
Nylon 6 — Hsin Tien *Yuan-Bao* (yarn)

NAN YA PLASTICS CORPORATION (part of Formosa Plastics Group)
Polyester — Tai Shan *Tainilin* (yarn & staple)

SHINKONG SYNTHETIC FIBERS CORPORATION
Polyester — Tao Yuan *Shinlon, Hilite* (yarn & staple)

TAINAN SPINNING CO., LTD.
Polyester — Tainan & Tao Yuan *Nanlon* (yarn & staple)

TONG-HWA SYNTHETIC FIBER CO., LTD.
Acrylic — Chu Pei *Town Flower* (staple & tow)

TUNG HO SPINNING WEAVING & DYEING CO., LTD.
Polyester — Tainan *Pearly Lene* (staple)

TUNTEX DISTINCT CORP.
Polyester — Hsin Su *Tuntex* (yarn & staple)

VANLON FIBERS INDUSTRIAL CORPORATION
Nylon 6 — Tao Yuan *Vanlon* (yarn)
Polyester — Tao Yuan *Vanlon* (yarn)

YU-HO FIBER INDUSTRIAL CORPORATION
Polyester — Tao Yuan *Luxlen* (yarn)

OLEFIN FIBER

CHIA YANG INDUSTRIAL CO., LTD. Hsi-Chih (P monofil)

CHIEN SUN PLASTIC INDUSTRIAL CO., LTD. Hsin-Chu (E & P film)

CHINA FOLEX CORPORATION Shih-Lin (E & P monofil)

CHUNG KUANG PLASTIC CO., LTD. Chang-Hua (E & P film)

FULLMARK INDUSTRIAL CO., LTD. Hsin-Chu (E & P monofil)

FUU WON CHEMICAL INDUSTRIAL CO., LTD. Tu-Chen (P yarn)

HSIEH CHIN FISHING NET COMPANY, LTD. Kaohsiung *Hsieh Chin* (E monofil - captive)

HUNG FENG ENTERPRISE CO., LTD. Yang-Mei (P monofil)

IEN YI FIBER INDUSTRIAL CO., LTD. Chi-Do Goble (E monofil)

JUI I CHEMICAL INDUSTRIAL CO., LTD. Tou-Yuan (E & P monofil)

KUO HSIANG ENTERPRISE CO., LTD. Yang-Mei (E & P monofil)

LIEN FU CHEMICAL COMPANY LTD. Tou-Fen (E & P monofil)

TAIWAN (continued)

MEI LON FIBER CO., LTD. Chang-Hua (E monofil)

PAO TSUNG TAI INDUSTRIAL COMPANY LTD. Tainan (P film)

POLON FIBER INDUSTRIAL CO., LTD. Chung-Li (P monofil)

SAN YANG INDUSTRIAL COMPANY LTD. Nei Hu Hsiang (P film)

TAI YEE CHEMICAL INDUSTRIAL CO., LTD. Chung-Li (E & P monofil)

UNITED FIBER INDUSTRIAL CO., LTD. Chung-Li (E & P monofil)

YAO CHENG PLASTIC CO., LTD. Pan-Chiao (P yarn)

TANZANIA

SUN FLAG TEXTILE KNITWEAR MILLS LTD.
Polyester — Arusha (yarn)

THAILAND

ASIA FIBER CO., LTD.
Nylon 6 — Samut Prakarn *AFC* (yarn)

CHIEM PATANA SYNTHETIC FIBRE LTD.
Polyester — Ratchaburi Prov. (yarn & staple*)

HANTEX CORPORATION LTD.
Nylon 6 — Mahacha, Samut Sakorn (yarn)

ORIENTAL FIBRE
Polyester — Samut Sakorn (yarn)

SIAM POLYESTER CO., LTD.
Polyester — Bangkok (yarn & staple*)

SUN FLAG (THAILAND) LTD.
Polyester — Ayuthaya* (yarn)

TEIJIN POLYESTER (THAILAND) LTD.
Polyester — Pathumthani, Bangkok *TEIJIN TETORON* (yarn & staple)

THAI ACRYLIC FIBER
Acrylic — (staple)

THAI BRANTA MULIA CO.
Nylon 6 — Wellgrow* (yarn)

THAI MELON POLYESTER CO. LTD.
Polyester — Pathumthani, Bangkok (yarn & staple)

THAI NYLON CO., LTD.
Nylon — (yarn*)

THAI RAYON CO., LTD.
Rayon — Ang Thong (staple)

THAILAND (continued)

THAI TAFFETA CO., LTD.
Nylon 6 — Bangkok* (yarn)

TORAY FIBERS (THAILAND)
Polyester — (yarn*)

TORAY NYLON THAI COMPANY
Nylon 6 — Bangkhen, Bangkok *TNT* (yarn & monofil)
Polyester — Atutthaya*, Bangkhen *TNT* (yarn)

TUNTEX (THAILAND) CO., LTD.
Polyester — (yarn & staple*)

TURKEY

AKRILIK KIMYA SANAYII A.S. (AKSA)
Acrylic — Yalova *Aksa* (staple)

DUSA ENDUSTRIYEL IPLIK SANAYII VE TICARET A.S.
Nylon 6 — Izmit (yarn)

FILAMENT SENTETIK IPLIK VE ELYAF SANAYII A.S.
Polyester — Bursa *Filament* (yarn & staple)

GEMLIK SUNI IPEK VE VISKOZ MAMULLERI SANAYII MUESSESESI (GEMLIK ARTIFICIAL SILK & VISCOSE PRODUCTS INDUSTRY) (Operated by the Sumerbank)
Rayon — Gemlik (yarn & staple)

INSA ISTANBUL NAYLON SANAYII A.S.
Nylon 6 — Istanbul *Islon* (yarn)
Polyester — Istanbul (yarn)

M.N. SABANCI
Nylon 6 — Izmit (yarn)
Polyester — Adana *MNS* (yarn) (idle)

NERGIS A.S.
Polyester — Bursa (yarn)

POLYLEN SENTETIK IPLIK SANAYII A.S.
Polyester — Bursa *Polylene* (yarn)

SANCAK TUL SANAYII LTD., STI.
Polyester — Istanbul *Lalelen* (yarn) (idle)

SASA SUNI VE SENTETIK ELYAF SANAYII A.S.
Polyester — Adana *Perilon* (yarn & staple)

SENTETIK IPLIK FABRIKALARI, A.S. (SIFAS) (SYNTHETIC YARN FACTORIES CORPORATION)
Nylon 6 — Bursa *SIFAS* (yarn & staple)
Nylon 66 — Bursa (yarn)
Polyester — Bursa (yarn & staple)

SISAS
Polyester — Canakkale* (yarn)

TEKSTIPLIK SANAYII VE TICARET A.S.
Nylon 6 — Edime *Dimlon* (yarn)

TURKEY (continued)

YALOVA ELYAF VE IPLIK SANAYII VE TICARET A.S.
Acrylic — Yalova *Yalova* (staple & tow)
Modacrylic — Yalova *Yalova* (staple & tow)

OLEFIN FIBER

BEZCI ELYAF SANAYII A.S. Istanbul

DINARSU ELYAF SANAYII A.S. Cerkezkoy, Tekirdag (P staple)

ELSAN ELYAF SANAYII VE TICARET A.S. Istanbul (P staple)

HALICIOGLU ELYAF SANAYII A.S. Haskoy, Istanbul (P staple)

SESAS ELYAF SANAYII A.S. Istanbul

GLASS FIBER

CAM ELYAF SANAYII A.S. Cayirova-Gebze (Izmit)

UNION OF SOVIET SOCIALIST REPUBLICS

RAYON PLANTS reported at:
Balakovo, Barnaul, Cherkassy (Ukraine), Kalinin, Kamensk, Kiev, Klin, Krasnoyarsk, Leningrad, Mogilev, Ryazan, Saratov, Sokol, Sverdlovsk and Svetlogorsk.
ACETATE PLANTS reported at:
Engels, Fergana, Kirovakan and Moscow.
NYLON PLANTS reported at:
Barnaul, Chernigov, Daugavpils, Engels, Grodno, Kemerovo, Kiev, Klin, Leningrad, Rustavi, Shchekino and Zhitomer.
SYNTHETIC (NONCELLULOSIC) FIBER PLANTS reported at:
Kursk (polyester), Blagoveshchensk* (polyester), Byelorussia (polyester), Kustanay (vinyon), Minsk (polyester), Mogilev (polyester), Navoi, Polotsk and Saratov (acrylic+modacrylic), Svetlogorsk (polyester), Tver* (polyester).
GLASS FIBER PLANTS reported at:
Astrakhan, Kalinin, Khabarovsk, Leningrad, Mingechaur, Moscow, Polotsk, Salavat, Saratov, Sevan and Severodonetsk.

UNITED KINGDOM

COURTAULDS FIBRES LTD.
Acrylic — Grimsby, South Humberside *Courtelle* (staple & tow) *Courtek M* (bioactive staple) *Sekril* (high modulus staple)
Modacrylic — Coventry, West Midlands *Teklan* (staple & tow) *Neochrome FR* (staple & tow)
Polyacrylate — Coventry *Inidex* (staple)
Rayon — Grimsby *Sarille* (staple) *Viloft* (staple & tow), Grimsby *Tencel*, (solvent-spun staple & tow)
Acetate — Coventry; Spondon, Derbyshire *Dicel* (yarn & tow)
Triacetate — Spondon *Tricel* (yarn)

DEAN DOVE LTD.
Polyester — Stanley, Durham (yarn)

UNITED KINGDOM (continued)

DU PONT (U.K.) LTD.

Aramid	Maydown *Kevlar* (yarn)
Spandex	Maydown, Londonderry, N. Ireland *Lycra* (fused multifil)

ECTONA FIBRES LTD.

Acetate	Siddick, Workington (cigarette tow)

HOECHST FIBRE INDUSTRIES U.K. LTD.

Polyester	Limavady, Londonderry, N. Ireland *Trevira* (yarn & monofil)

ICI FIBRES (part of ICI Chemicals and Polymers Ltd.)

Biconstituent	Doncaster, Yorkshire (staple)
Nylon 66	Doncaster, Gloucester, Gloucestershire; Pontypool, Gwent *Bri-Nylon, Quintesse, Tactel, Tactesse, Tendrelle, Timbrelle* (yarn, staple & tow)
Polyester	Pontypool *Terinda, Terylene* (yarn)

PENNINE FIBRE INDUSTRIES LTD.

Nylon 6/66	Bradford (monofil)
Polyester	Bradford, West Yorkshire (staple & tow)

PERI-LUSTA PLC

Nylon 6/66	Leek, Staffordshire (monofil)

SHAKESPEARE MONOFILAMENT UK LIMITED

Nylon 6/66	Poulton-le-Fylde, Lancashire (monofil)
Polyester	Poulton-le-Fylde (monofil)

OLEFIN FIBER

BELFAST ROPEWORK CO. PLC Birmingham, W. Midlands *Bluebell* (E & P monofil, P yarn, staple & film)

DON & LOW (HOLDINGS) LTD. Forfar, Angus, Scotland (P yarn, monofil, staple & film)

F. DRAKE (FIBRES) LTD. Golcar, Huddersfield, Yorkshire *Gymlene* (P staple)

F. DRAKE & CO. OF GOLCAR LTD. Golcar, Huddersfield (P yarn)

HALL'S BARTON ROPERY LTD. Beverley, N. Humberside (P film and E & P monofil)

WM. HALLEY & SONS (MFG.) LTD. Dundee, Scotland

OAKDALE YARNS Crumlin, Gwent, Wales (P yarn)

PLASTICISERS LTD. Drighlington,Yorkshire *Drylene* (E monofil), *Charisma, Duron, Fibrite, Tritor* (P yarn, monofil, film & staple)

POLYOLEFIN FIBRES & ENGINEERING LTD. Halifax, Yorkshire *Downspun* (P staple)

READICUT INT'L. PLC. Brighouse, W. Yorks

UNITED KINGDOM (continued)

J & D WILKIE LTD. Kitriemuir, Angus, Scotland

OLEFIN FILM FIBER, only

AGRIPAK Dundee, Scotland

AMOCO FABRICS & FIBERS CO., DIVISION OF AMOCO (U.K.) PLC Consett, Dundel, Durham

BONAR TEXTILES Dundee, Scotland

BRIDON FIBRES & PLASTICS LTD. Gateshead & Sunderland, Durham & Wallsend, Northumberland *Broplene, Red Star, Viking*

SCOTT & FYFE LTD. Tayport, Fife, Scotland

SMITH & NEPHEW TEXTILES LTD. Newhey, near Rochdale, Lancashire *Polyweave*

SYNTHETIC INDUSTRIES (IRELAND) LTD. Newry, Down, N. Ireland

GLASS FIBER

FIBREGLASS PLC (subsidiary of Pilkington Brothers PLC) Wrexham, Clwyd, Wales *Fibreglass*

T GLASS FIBRES PLC Camberley, Surrey & Hindley Green, Lancashire

FIBREGLASS-REGINA, a joint venture of **FIBREGLASS PLC** and the **BBA GROUP PLC,** is producing textile glass tissue (voile) at Liversedge and St. Helens, Merseyside.

PPG GLASS FIBRES, LTD. Hindley Green, Wigan, Lancashire

UNITED STATES OF AMERICA

ALBANY INTERNATIONAL - MONOFILAMENT PLANT •

Fluoro	Homer, NY *Halar, Kynar, Tefzel* (monofil)
Nylon 6, 66 & 612	Homer (monofil)
Polyester	Homer (monofil - regular & hydrolysis-resistant)

ALLIED-SIGNAL INC. ENGINEERED MATERIALS SECTOR, FIBERS DIVISION •

Nylon 6	Columbia, SC & Chesterfield, VA *A.C.E., Anso-Tex, Anso IV HP, AnsoV Worry Free, Anso, Anso with Scotchgard Stain Release, Anso Crush Resister, Anso TI, Caplana, Caprolan, Caprolan 2000 Sea Gard, Caprolan 2000 Stay Gard, Capima, Captiva, Compet, Creme De Captiva, Hydrofil, Patina* (yarn, monofil & staple)
Polyester	Moncure, NC *A.C.E., A.C.E. Sea Gard, Compet, DSP, Stay Gard* (yarn & monofil)

AMERICAN CYANAMID COMPANY, FIBERS DEPARTMENT

Acrylic	Milton, FL *Creslan* (staple & tow)

UNITED STATES OF AMERICA (continued)

AMERICAN POLYCRAFT, INC. •

Nylon 6	Dalton, GA (yarn)

BASF CORPORATION FIBERS DIVISION

Nylon 6	Enka, NC; Anderson & Central, SC and Lowland, TN *Crepeset, Shimmereen, Soft-Glo®, Vivana, Zefsport, Zeftron, Zeftron 500, Zeftron 500 ZX* (yarn & staple)
Polyester	Lowland *Golden Glow, Golden Touch, Silky Touch, Strialine, Ultra Touch* (yarn)
Rayon	Lowland *Zantrel* (staple)

BEAULIEU OF AMERICA, INC.•

Nylon 6	Bridgeport, AL (yarn)

BERKLEY & CO., INC. •

Nylon 6	Spirit Lake, IA (monofil)

CAMAC CORPORATION (a Cookson Company) •

Nylon 6.6	Bristol, VA (yarn)
Polyester	Bristol (yarn)

CONCORDE FIBERS, INC.

Nylon 6	Jamestown, SC (yarn)

CORTLAND LINE COMPANY, INC.

Nylon 6	Cortland, NY (monofil - captive)

COURTAULDS FIBERS INC.

Rayon	Le Moyne, Mobile County, AL *Fibro* (staple)

DORSETT CARPET MILLS INC. •

BCF YARN DIVISION

Nylon 6	Chatsworth, GA (yarn)

E.I. DU PONT DE NEMOURS & COMPANY (INC.) •

FIBERS DEPARTMENT •

Acrylic*	Camden, SC & Waynesboro, VA *Orlon* (staple & tow) ***Shutdown announced***
Aramid	Richmond, VA *Kevlar* (yarn), *Nomex* (yarn, staple & tow)
Nylon 66	Seaford, DE; Camden, SC; Chattanooga, TN and Martinsville, Richmond & Waynesboro, VA *Antron* (yarn, monofil, staple & tow)
Polyester	Kinston & Wilmington, NC; Camden & Charleston, SC *Dacron* (yarn, staple, tow & fiberfill)
Spandex	Waynesboro *Lycra* (fused multifill or coalesced monofil)

POLYMER PRODUCTS DEPARTMENT

Nylon 6, 66, 612 & Polyester	Parkersburg, WV *Dacron, Dymetrol, Tynex, Vylor* (monofil of 50 denier & coarser)

UNITED STATES OF AMERICA (continued)

EASTMAN KODAK COMPANY - EASTMAN CHEMICAL COMPANY

Acetate	Kingsport, TN *Chromspun, Estron* (yarn)
Polyester	Kingsport, TN *Kodel* (staple)

FIBER INDUSTRIES (a Wholly Owned Subsidiary of Wellman, Inc.)

Polyester	Fayetteville, NC & Darlington, SC *Fortrel* (yarn & staple)

FIRESTONE FIBERS & TEXTILES COMPANY, DIVISION OF BRIDGESTONE/FIRESTONE, INC.

Polyester	Hopewell, VA (yarn)

FOSS MANUFACTURING CO., INC. •

Polyester	Haverhill, MA (staple - captive)

GATES FORMED FIBER PRODUCTS, INC.

Polyester	Auburn, ME (staple)

GLOBE MANUFACTURING CO.

Spandex	Fall River, MA & Gastonia, NC *Cleerspan, DC-100, DC-700, Glospan* (fused multifil)

THE GOODYEAR TIRE & RUBBER COMPANY, POLYESTER DIVISION

Polyester	Scottsboro, AL & Point Pleasant, WV (yarn - captive)

GUILFORD FIBERS GUILFORD MILLS, INC.

Nylon 6	Gainesville, GA (monofil)
Polyester	Fuquay-Varina, NC (yarn & monofil)

GULF FIBERS INC.

Nylon 6	Le Moyne, Mobile County, AL (monofil)

HOECHST CELANESE TEXTILE FIBERS •

Acetate	Rock Hill, SC *Celriver* and Narrows, VA *Celco* (yarn, staple & tow)
Nylon 6/66	Waynesboro, VA (monofil)
Polyester	Salisbury & Shelby, NC; Spartanburg, SC and Waynesboro, VA *BTU, Ceylon, Comfort Fiber, ESP, Loftguard, Polar-Guard, Premafill Soft, Premafill Plump, Serene, Superba, Trevira* (yarn, staple, tow, highloft, spunbonded & monofil)
PBI	Rock Hill (staple)
Polycarbonate	Waynesboro (monofil)

IMAGE CARPETS, INC.

Polyester	Armuchee, GA (staple - captive)

JAMES RIVER CORP. •

Nylon 6/66	Cantonment, FL *Cerex* (spunbonded)
Polyester	Milford, NJ and Simpsonville, SC *Polyweb* (thermal bond & meltblown)

UNITED STATES OF AMERICA (continued)

JOHNSON FILAMENTS, INC.

Nylon 6/66	Williston, VT (monofil)
Polyester	Williston (monofil)

KAYSER-ROTH CORPORATION YARN MANUFACTURING OPERATIONS

Nylon 66	Creedmoor, NC (yarn - captive)

KETEMA INC., SPECIAL FILAMENTS DIVISION •

Nylon 6, 66, 612, 610 & 12	Odenton, MD (monofil)
Polyester	Odenton (monofil)
PEEK	Odenton (monofil)
PPS	Odenton (monofil)

LEWISTOWN "SPECIALTY" YARNS, INC.

Polyester	Lewistown, PA (yarn)

MANN INDUSTRIES, INC.

Acrylic	Williamsburg, VA *Zefran, Biokryl, Mann Acryl, Acry Pulp* (staple)

MARTIN COLOR-FI, INC. •

Nylon	Sumter & Trenton SC (staple & tow)
Polyester	Sumter & Trenton (staple)

MONSANTO CHEMICAL COMPANY FIBERS AND ENGINEERED PRODUCTS DIVISION

Acrylic	Decatur, AL *Acrilan, Acrilan II, Bi-Loft, Du-Rel, Fi-Lana II, Pa-Qel, So-Lara* (staple & tow)
Modacrylic	Decatur *SEF, SEF Plus* (staple & tow)
Nylon 66	Pensacola, FL & Greenwood, SC *No-Shock, Ultron* (yarn & staple)
Nylon 66/Acrylic	Foley, AL *Traffic Control Fiber System* (staple)

NORTH AMERICAN POLYESTER CORPORATION (subsidiary of North American Rayon Corporation)

Polyester	Elizabethton, TN (staple)

NORTH AMERICAN RAYON CORPORATION

Rayon	Elizabethton, TN (ind & reg yarn & tow)

PHILLIPS FIBERS CORPORATION • (subsidiary of Phillips 66 Company)

Sulfar	Rocky Mount, NC *Ryton* (staple)

REEMAY, INC. •

Polyester	Old Hickory, TN *Reemay* (spunbonded)

SHAKESPEARE COMPANY, MONOFILAMENT DIVISION •

Nylon 6/66/610	Columbia, SC (monofil)
Polyester	Columbia (monofil)
PEEK	Columbia (monofil)
PPS	Columbia (monofil)

STAR FIBERS, INC.

Nylon 6/66	Edgefield, SC *Starbrite* (staple)

UNITED STATES OF AMERICA (continued)

TOLARAM FIBERS, INC. •

Nylon 66	Ansonville, NC (yarn)
Polyester	Ansonville & Asheboro (yarn)

WELLMAN, INC., MAN-MADE FIBER DIVISION

Nylon 6/66	Johnsonville, SC *Wellon, Wellstrand* (staple, tow & tops)
Polyester	Johnsonville *Fillwell, Fortrel, Wellene, Wellstrand* (staple & tow)

YKK ZIPPER CO.

Polyester	Macon, GA (yarn)

OLEFIN FIBER

ACS INDUSTRIES, INC. Woonsocket, RI (P yarn, monofil & multifil)

ALADDIN MILLS, INC. Dalton, GA (P yarn)

ALBANY INTERNATIONAL - MONOFILAMENT PLANT Homer, NY (P monofil)

ALLIED-SIGNAL, INC. ENGINEERED MATERIALS SECTOR, FIBERS DIVISION Chesterfield, VA *Spectra 900, Spectra 1000* (E yarn)

AMERICAN MANUFACTURING COMPANY LAFAYETTE ROPE DIVISION Lafayette, LA *Amco, American, Bondtie, Fiberope, Ultraline* (E & P monofil & film)

AMERICAN POLYCRAFT, INC. Dalton, GA (P yarn & film)

AMOCO FABRICS & FIBERS COMPANY Andalusia & Roanoke, AL, Bainbridge, Hazlehurst & Nashville, GA & Afton, VA *Amoweve, Condesa, Genesis, Marquésa Lana, Marquésa Lana ST, Patlon, Patlon Plus, Propex III, Synera* (P yarn, monofil, film & staple)

ARLIN MFG. CO., INC. Lowell, MA (P film)

BEAULIEU OF AMERICA, INC. Bridgeport, AL & Dalton, GA (yarn, film & staple)

BERKLEY & CO. INC. Spirit Lake, IA (E & P monofil - captive)

BLUE MOUNTAIN INDUSTRIES Blue Mountain, AL *Poly Tying Twines, Polylasting, TY-EZ Polytapes* (E & P film)

BRIDON CORDAGE INC. Albert Lea, MN (P film cordage)

CALIFORINA WEBBING INDUSTRIES, INC. Los Angeles, CA (P yarn)

CAMAC CORPORATION (a Cookson Company) Bristol, VA (P yarn)

CARRIAGE INDUSTRIES Calhoun, GA (P yarn)

CHASE PACKAGING CORPORATION (subsidiary of Union Camp Corp.) Portland, OR (P film industrial goods)

UNITED STATES OF AMERICA (continued)

CIRTEX CORPORATION Dalton, GA (P film)

COLUMBIAN ROPE COMPANY Guntown, MS *Polypro 6* (E & P monofil & film)

CONTINENTAL (P yarn)

CROWE ROPE COMPANY Warren, ME *Crowelon* (P monofil & film)

CUMBERLAND MILLS, INC. Dalton, GA (P yarn)

CUTLASS CARPET COMPANY Dalton, GA (P yarn)

DIAMOND MILLS, INC. Eton, GA (P yarn & film)

DICEY MILLS, INC. Shelby, NC (P yarn)

DORSETT CARPET MILLS INC. BCF YARN DIVISION Chatsworth, GA (P yarn)

E.I. DU PONT DE NEMOURS & COMPANY (INC.), FIBERS DEPARTMENT Richmond, VA *Tyvek* (E spunbonded), Chattanooga, TN (P yarn)

ELIZABETH WEBBING MILLS CO., INC. Central Falls, RI (P yarn)

ENSIGN-BICKFORD INDUSTRIES, INC., FILM FIBERS DIVISION Simsbury, CT *E-B Mesh®*, chopped fibers for concrete (P film)

EXTRUDED FIBERS, INC. Dalton, GA (P yarn)

EXXON CHEMICAL COMPANY, POLYMERS GROUP Kingman, KS; Summerville, SC and Clearfield, UT (P monofil & film)

FIBERS & FABRICS OF GEORGIA, INC. (subsidiary of Georgia Synthetics, Inc.) Elberton, GA (PP yarns, fibrillated, roll embossed filaments & slit tape)

FIBRES SOUTH, INC. Trussville, AL *Polystar, Trustite, Tyrite* (P film, monofil, tapes & staple)

FILAMENT FIBER TECHNOLOGY INCORPORATED Salisbury, NC (P fine denier yarn)

FNT INDUSTRIES, INC. Menominee, MI (E monofil)

FOSS MANUFACTURING CO., INC. Haverhill, MA (P staple - captive)

GENERAL FIBERS & FABRICS, INC. La Grange & Soperton, GA (P film)

GEORGIA SYNTHETICS, INC. Elberton, GA (PP carpet backing, industrial fabrics)

HERCULES INCORPORATED, ABSORBENT AND TEXTILE PRODUCTS GROUP Oxford, GA *Elustra, Herculon, Nouvelle* (P yarn & staple)

UNITED STATES OF AMERICA (continued)

HOECHST CELANESE TEXTILE FIBERS Waynesboro, VA (P mono)

THE HOOVEN & ALLISON COMPANY Xenia, OH (P film)

J & J INDUSTRIES Dalton, GA (P yarn)

JAMES RIVER CORPORATION Milford, NJ, Simpsonville, SC and Washougal, WA *Celestra, Fibretex* (P spunbonded)

KETEMA INC., SPECIAL FILAMENTS DIVISION Odenton, MD (E & P monofil)

KIMBERLY-CLARK CORPORATION Corinth, MS; Balfour & Lexington, NC; La Grange, GA & Neenah, WI *Accord, Duraguard, Evolution* (P spunbonded); *Cyclean, Evolution III* (P spunbonded/ meltblown laminate)

LAMBETH CORPORATION New Bedford, MA *Lambeth* (E & P monofil)

LAWRENCE INDUSTRIES Burlington, NC (E monofil - captive)

LORETEX CORPORATION Guilderland Center, NY (E film-captive)

MARTIN COLOR-FI, INC. Sumter, SC (staple)

MIRAFI INC. (subsidiary of Dominion Textile Inc.) Moultrie, GA (P film - captive)

ORIAN Anderson, SC (P yarn)

THE OSTERNECK COMPANY Lumberton, NC (P film)

PAN AMERICAN AGRI FABRICS (formerly Sarlon Industries, Inc.) Miami, FL (P monofil & film)

PHILLIPS FIBERS CORPORATION (subsidiary of Phillips 66 Company) Rocky Mount, NC, Seneca & Spartanburg, SC *Alpha, Marvess* (P yarn, staple & tow)

POLI-TWINE WESTERN INC. Clearfield, UT (P monofil, P film, rope & cordage)

POLYLOOM CORPORATION OF AMERICA Dayton, TN *Polyloom* (P split film)

PRINCETON (CARPET IND. OF N.A.) Adairsville, GA (P yarn)

REEMAY, INC. Old Hickory, TN *Typar, Typelle, Tekton, Biobarrier* (P spunbonded)

SHAKESPEARE MONOFILAMENT DIVISION Columbia, SC (P monofil)

SHAW INDUSTRIES (formerly Armstrong World Industries, Inc.) Charlotte, NC (P yarn & film - captive)

SHENANDOAH FIBERS, INC. Front Royal, VA* (P staple)

UNITED STATES OF AMERICA (continued)

SHUFORD MILLS, INC. Hickory, NC (P film cordage & twine)

SOLUTION FIBERS INC. Lafayette, GA *Better Body, Luxene* (P yarn)

SOUTHERN WEAVING, INC. Greenville, SC (P yarn)

STEVENS FIBER DIVISION, STEVENS LINEN ASSOC., INC. Dudley, MA (P staple)

SUNSHINE ROPE MANUFACTURING INC. Miami, FL (E & P monofil, cordage)

SYNTHETIC INDUSTRIES Chickamauga & Dalton, GA (P film, yarn & staple)

SYNTHETIC INDUSTRIES, FIBRON DIVISION Chattanooga TN *Fibri-Cord, Fibri-Knit, Fibrilawn, Fibrilon* (P film)

TECHLON FIBERS CORPORATION Dalton, GA (P yarn)

TECHNOTRADE Dalton, GA (P yarn)

THE 3M COMPANY (P spunbonded)

TOLARAM FIBERS, INC. Ansonville, NC (P yarn)

TWINE PRODUCTS CORPORATION New Orleans, LA (P film)

UNITED STATES ROPE COMPANY Menlo Park, CA (P monofil)

WALL INDUSTRIES, INC. Granite Quarry, NC (E & P monofil, rope & cordage)

WALTRICH PLASTIC CORPORATION Walthourville, GA (P monofil)

WAYN-TEX, INC. Waynesboro, VA *Beamette, Wayntuf* (E & P monofil & P film - captive, spunbonded)

WELLINGTON LEISURE PRODUCTS INC. Pilot Mountain, NC *Pur-Ty, Welltite* (P yarn & E & P monofil & film)

WELLINGTON SYNTHETIC FIBRES, INC. Leesville & Summerville, SC (P yarn & monofil)

TEXTILE PRODUCTS FROM OLEFIN

CONWED CORP. Conwed Plastic Netting (P embossed film for netting)

E.I. DU PONT DE NEMOURS & COMPANY (INC.) (E & P embossed film for netting)

NALLE, INC. (P embossed film for netting)

RIEGEL PRODUCTS CORPORATION *Polyweb* (P meltblown)

UNITED STATES OF AMERICA (continued)

GLASS FIBER

CERTAINTEED CORPORATION, FIBER GLASS REINFORCEMENTS DIVISION Wichita Falls, TX *RO99, SatinGlass, Stitchmat, Unifilo* (roving, woven roving, mat, chopped strand & combination product)

FIBER GLASS INDUSTRIES, INC. Amsterdam, NY (roving & chopped, woven, mats)

GAF BUILDING MATERIALS CORPORATION Nashville, TN (chopped - captive)

GFT, INC. (GLASS FIBER TECHNOLOGY) Chester, SC (wet chop for shingles)

LUNDY TECHNICAL CENTER Pompano Beach, FL *RoMHOglas* (metallized glass fiber roving & strand and nonwoven metallized glass mat)

MANVILLE SALES CORPORATION, MATS, FIBER & REINFORCEMENTS DIVISION Waterville, OH; Etowah, TN & Ennis, TX *Chop-Pak, Dura-Glass, Star Stran, Star Rov, Tempstran, Star Tex, Vitron* (mat, chopped strands, sliver, rovings & microfibers)

NICOFIBERS CO. Shawnee, OH *Conformat, Surmat* (continuous strand & filament mats)

NITTOBO-SCHWEBEL CORPORATION* (yarn)

OWENS-CORNING FIBERGLAS CORPORATION Huntingdon, PA; Aiken & Anderson, SC and Amarillo, TX *Araton, Beta, Bi-Ply, Creel-Pak, ECRGLAS Type 30, Fiberglas, S-Glass, S-2 Glass* (yarn, roving, woven roving, mat, chopped & milled)

PPG INDUSTRIES, INC. Lexington & Shelby, NC (yarn, roving, woven roving, mat, chopped & milled and rubber reinforcement)

SUPERIOR GLASS FIBERS, INC. Bremen, OH (mat)

URUGUAY

HILADOS SINTETICOS S.A. (HISISA)

Nylon 66	Montevideo *Hisilon* (yarn)

POLIMEROS URUGUAYOS S.A.

Polyester	Montevideo (staple)

SINTETICOS SLOWAK S.A.

Nylon 6	Montevideo *Crofil* (yarn & monofil)
Nylon 66	Montevideo *Hisilon* (yarn)
Polyester	Montevideo *Terpol* (yarn)

SUDAMTEX DE URUGUAY S.A.

Acetate	Montevideo (yarn)

URUGUAY (continued)

OLEFIN FIBER

ARYN S.A. Montevideo (E monofil)

CINCA S.A. Montevideo (E film)

ELABORADORA DE ARPILLERA SINTETICA S.A.
Montevideo (E film)

VENEZUELA

C.A. INVERSIONES ARAGUA
Nylon 6 — Maracay *Sudalon* (yarn)

GOMELAST, C.A.
Spandex — Caracas *Spandaven* (yarn)

HILADOS FLEXILON
Nylon 6 — Caracas (yarn)
Polyester — Caracas (yarn)

MANTEX, C.A.
Acetate — Valencia (yarn)
Polyester — Maracay, Valencia *Fortrel* (yarn & staple)

SUDAMTEX DE VENZUELA, C.A.
Polyester — Maracay (yarn & staple)

YUGOSLAVIA

HEMTEKS
Polyester — Skopje, Macedonia *Maklen* (yarn & staple)

INCEL FABRIKA CELULOZE I VISKOZE
Polyester — Banja Luka, Bosna i Hercegovina *Belira* (yarn)
Rayon — Banja Luka (staple)

INDUSTRIJA SINTETICKIK VLAKANA (PROGRES)
Nylon 6 — Prizren, Kosovo Mitohijan *Supralon* (yarn)
Polyester — Istok, Kosovo Mitohijan & Prizren *Prizrenit* (yarn)

KEMICNA TOVARNA MOSTE
Nylon 6 — Ljubljana, Slovenia *Yulon* (yarn)

ORGANSKO HEMIJSKA INDUSTRIJA SKOPJE (OHIS)
Acrylic — Skopje, Macedonia *Makrolan, Malon* (staple)

TEKSTILNA INDUSTRIYA "ZELE VELJKOVIC"
Nylon 6 — Leskovac" (yarn & staple)

VARAZDINSKI TEKSTILNI KOMBINAT (VARTEKS)
Polyester — Varazdin (staple)

VISKOZA
Rayon — Loznica, Serbia (ind & reg yarn & staple)

YUGOSLAVIA (continued)

OLEFIN FIBER

HEMIJASKA INDUSTRIJA U OSNIVANJU Belgrade (P staple)

GLASS FIBER

GOSTIVAR STAKLARA Staklara (roving & mat)

TABLE 10:
SELECTED U.S. MANUFACTURED FIBER IMPORTS BY COUNTRY OF ORIGIN
THOUSAND POUNDS

ITEMS & COUNTRY	1991 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR TO DATE 1991	1990
ARTIFICIAL (CELLULOSIC) YARN, MONOFIL & STRIPS														
AUSTRIA	123	0	38	114									275	160
BRAZIL	109	164	28	109									410	206
CANADA	775	408	877	1147									3207	1507
CHILE	44	22	44	0									110	419
WEST GERMANY	478	633	531	493									2135	2466
IRELAND	0	0	0	0									0	216
JAPAN	111	134	114	119									478	391
MEXICO	150	39	118	41									348	305
NETHERLANDS	263	188	279	218									948	1034
UNITED KINGDOM	86	0	0	35									121	116
ALL OTHER COUNTRIES [a]	18	56	33	43									150	225
TOTAL ARTIFICIAL YARN	**2157**	**1644**	**2062**	**2319**									**8182**	**7045**
ARTIFICIAL (CELLULOSIC) STAPLE+TOW+TOPS														
AUSTRIA	1339	1371	1214	396									4320	2174
CANADA	3228	2840	3042	1843									10953	17551
FINLAND	309	197	371	143									1020	143
WEST GERMANY	515	46	0	0									561	802
JAPAN	84	227	95	95									501	604
SPAIN	0	0	0	0									0	0
TAIWAN	1336	1268	1186	1721									5511	3629
THAILAND	763	1317	232	296									2608	66
UNITED KINGDOM	815	438	473	128									1854	292
YUGOSLAVIA	584	29	2559	636									3908	0
ALL OTHER COUNTRIES [b]	544	206	251	333									1334	789
TOTAL ARTIFICIAL STAPLE+TOW	**9517**	**7939**	**9423**	**5591**									**32470**	**26050**
SYNTHETIC (NONCELLULOSIC) YARN, MONOFIL & STRIPS														
BELGIUM	239	40	100	143									522	2081
BRAZIL	0	0	0	48									48	378
CANADA	2668	3903	3431	4073									14075	14654
COSTA RICA	725	454	473	544									2196	2238
ECUADOR	0	34	34	15									83	203
FRANCE	627	705	668	841									2841	5755
WEST GERMANY	1556	1449	1843	1576									6424	7143
IRELAND	147	215	119	34									515	82
ITALY	106	109	29	38									282	2824
JAPAN	953	903	1401	1266									4423	2496
KOREA, REP. OF	117	59	149	5									330	141
MEXICO	1414	1663	1343	1620									6040	5296
NETHERLANDS	223	258	329	284									1094	1548
PORTUGAL	0	0	0	160									160	387
SPAIN	0	0	0	1									1	194
TAIWAN	89	91	45	132									357	1950
THAILAND	61	67	65	95									288	369
UNITED KINGDOM	1740	1370	2596	1637									7343	6478
ALL OTHER COUNTRIES [c]	125	261	168	135									689	495
TOTAL SYNTHETIC YARN	**10690**	**11581**	**12793**	**12647**									**47711**	**54712**
SYNTHETIC (NONCELLULOSIC) STAPLE+TOW+TOPS														
AUSTRIA	15	25	0	12									52	75
AUSTRALIA	75	143	0	81									299	260
BELGIUM	4	0	2	0									6	175
BRAZIL	0	110	199	87									396	27
CANADA	1378	1146	968	1942									5434	11549
FRANCE	544	417	282	421									1664	2094
WEST GERMANY	1136	1400	1732	1931									6199	4521
INDIA	3008	3879	264	0									7151	7001
IRELAND	0	0	0	0									0	26
ITALY	176	47	80	53									356	1478
JAPAN	2386	2197	2080	1840									8503	7363
KOREA, REP. OF	4958	6473	6864	5486									23781	6880
MEXICO	1957	1575	1576	2743									7851	10001
SPAIN	14	22	0	20									56	35
SWITZERLAND	117	285	152	127									681	995
TAIWAN	3102	1918	1891	3664									10575	3791
TURKEY	0	0	2	111									113	226
UNITED KINGDOM	1848	1395	963	1630									5836	9110
ALL OTHER COUNTRIES [d]	133	182	27	218									560	1155
TOTAL SYNTHETIC STAPLE+TOW	**20851**	**21214**	**17082**	**20366**									**79513**	**66762**

a. Belgium 69, India 52, France 15, Spain 7, Italy 5, Taiwan 2.

b. China, PRC 783, Sweden 302, Poland 185, Belgium 45, USSR 18, Italy 1.

c. Israel 413, Switzerland 44, Austria 37, Colombia 32, Singapore 32, Sweden 29, El Salvador 25, Australia 22, Hong Kong 18, Morocco 17, Honduras 7, Denmark 5, Greece 3, Argentina 2, China, PRC 2, Finland 1.

d. Israel 166, Malaysia 143, Romania 85, Netherlands 59, Denmark 46, Hong Kong 44, Czechoslovakia 12, China, PRC 5.

TABLE 11:
U.S. MANUFACTURED FIBER IMPORTS[a]
THOUSAND POUNDS

ITEM	1991 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR TO DATE 1991	1990
ARTIFICIAL (CELLULOSIC) FIBER														
FILAMENT YARN														
HIGH TENACITY	311	129	212	316									968	853
TEXTURED	0	0	0	0									0	95
OTHER	1845	1514	1847	1999									7205	5755
MONOFILAMENTS & STRIPS	1	1	3	4									9	342
SUBTOTAL ABOVE	**2157**	**1644**	**2062**	**2319**									**8182**	**7045**
STAPLE	8891	7889	9419	5533									31732	24873
TOW	626	50	4	58									738	1171
TOPS	0	0	0	0									0	6
SUBTOTAL ABOVE	**9517**	**7939**	**9423**	**5591**									**32470**	**26050**
WASTE	**87**	**129**	**0**	**695**									**911**	**22**
SYNTHETIC (NONCELLULOSIC) FIBERS														
FILAMENT YARN														
NYLON														
HIGH TENACITY	1173	2391	1704	2541									7809	4728
TEXTURED														
UP TO 450 DENIER	198	350	232	285									1065	1194
OVER 450 DENIER	1197	1786	1557	1069									5609	9457
POY	2103	1563	3032	1981									8679	0
OTHER	834	780	821	1828									4263	14711
MONOFILAMENTS & STRIPS	150	72	131	131									484	672
SUBTOTAL ABOVE	**5655**	**6942**	**7477**	**7835**									**27909**	**30762**
POLYESTER														
HIGH TENACITY	785	708	651	621									2765	1949
TEXTURED	833	810	561	622									2826	2977
POY	207	172	201	246									826	1713
OTHER	1548	1439	2102	1371									6460	6637
MONOFILAMENTS & STRIPS	41	31	30	68									170	160
SUBTOTAL ABOVE	**3414**	**3160**	**3545**	**2928**									**13047**	**13436**
OTHER SYNTHETIC FILAMENT														
TEXTURED	248	105	164	174									691	6963
OTHER	841	804	1233	1149									4027	1077
MONOFILAMENTS & STRIPS	532	570	374	561									2037	2474
SUBTOTAL ABOVE	**1621**	**1479**	**1771**	**1884**									**6755**	**10514**
STAPLE														
NYLON	1879	1788	1576	2330									7573	14172
POLYESTER	14049	15468	11687	12879									54083	31348
ACRYLIC	853	804	971	1640									4268	7089
POLYPROPYLENE	134	305	363	271									1073	767
OTHER	276	229	400	211									1116	852
TOW														
NYLON	591	386	240	543									1760	1657
POLYESTER	35	272	35	150									492	157
ACRYLIC	2869	1898	1768	2227									8762	9386
OTHER	16	59	0	0									75	215
TOPS	149	5	42	115									311	1119
SUBTOTAL ABOVE	**20851**	**21214**	**17082**	**20366**									**79513**	**66762**
WASTE														
NYLON	2030	1483	1648	1319									6480	8329
POLYESTER	2217	1032	774	765									4788	7893
OTHER	309	381	625	751									2066	2644
TOTAL MANUFACTURED FIBERS ABOVE	**47858**	**45403**	**44407**	**44453**									**182121**	**173457**
OTHER MFRD. FIBER YARN & THREAD														
SEWING THREAD														
FILAMENT	49	163	98	125									435	294
SPUN YARN	579	341	416	648									1984	1846
SPUN YARNS														
SYNTHETIC	431	843	746	610									2630	9141
ARTIFICIAL	0	0	0	0									0	0
PUT UP FOR RETAIL SALE	67	66	58	60									251	8
GRAND TOTAL ABOVE	**48984**	**46816**	**45725**	**45896**									**187421**	**184746**

SOURCE: U.S. Census Bureau Report IM145X.

a. U.S. General Imports.

TABLE 12:
U.S. MANUFACTURED FIBER EXPORTS
THOUSAND POUNDS

ITEM	1991 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR TO DATE 1991	1990
ARTIFICIAL (CELLULOSIC) FIBER														
FILAMENT YARN														
HIGH TENACITY	134	284	263	22									703	179
TEXTURED	65	44	41	198									348	540
OTHER	211	69	132	193									605	293
MONOFILAMENTS & STRIPS	2	8	42	12									64	123
SUBTOTAL ABOVE	**412**	**405**	**478**	**425**									**1720**	**1135**
STAPLE	970	779	549	710									3008	6413
TOPS	0	15	3	0									18	723
SUBTOTAL ABOVE	**970**	**794**	**552**	**710**									**3026**	**7136**
WASTE	**527**	**666**	**2006**	**425**									**3624**	**1898**
SYNTHETIC (NONCELLULOSIC) FIBERS														
FILAMENT YARN														
NYLON														
HIGH TENACITY	8070	7887	9547	9139									34643	33338
TEXTURED														
UP TO 450 DENIER	1068	886	1636	1558									5148	4883
OVER 450 DENIER	4023	4917	3298	3021									15259	19344
POY	61	102	38	66									267	0
OTHER	3060	2769	3549	3394									12772	10445
MONOFILAMENTS & STRIPS	34	57	6	56									153	166
SUBTOTAL ABOVE	**16316**	**16618**	**18074**	**17234**									**68242**	**68176**
POLYESTER														
HIGH TENACITY	5640	5735	5488	5274									22137	19670
TEXTURED	5014	4345	7042	5020									21421	13681
POY	657	685	2216	2078									5636	7269
OTHER	2391	1711	2362	2654									9118	6142
MONOFILAMENTS & STRIPS	138	80	235	349									802	654
SUBTOTAL ABOVE	**13840**	**12556**	**17343**	**15375**									**59114**	**47416**
OTHER SYNTHETIC FILAMENT														
TEXTURED	603	627	620	473									2323	2408
OTHER	2963	1623	2068	2461									9115	9293
MONOFILAMENTS & STRIPS	1050	859	1470	1062									4441	4671
SUBTOTAL ABOVE	**4616**	**3109**	**4158**	**3996**									**15879**	**16372**
STAPLE														
NYLON	2146	2453	1337	1768									7704	11528
POLYESTER	6379	8388	10134	9404									34305	30753
ACRYLIC	2431	1826	2976	2459									9692	15580
POLYPROPYLENE	3302	1817	1957	3106									10182	9491
OTHER	1489	1074	1811	1089									5463	6076
TOW														
NYLON	253	150	187	122									712	756
POLYESTER	58	1	32	79									170	182
ACRYLIC	1511	1278	855	339									3983	5442
OTHER	14	1	402	7									424	296
TOPS	11009	5452	6387	4995									27843	13782
SUBTOTAL ABOVE	**28592**	**22440**	**26078**	**23368**									**100478**	**93886**
WASTE														
NYLON	2788	2965	3563	2700									12016	15007
POLYESTER	2989	5530	5263	2796									16578	12216
OTHER	6305	6811	7387	7147									27650	16374
TOTAL MANUFACTURED FIBERS ABOVE	**77355**	**71894**	**84902**	**74176**									**308327**	**279616**
OTHER MFRD. FIBER YARN & THREAD														
SEWING THREAD														
FILAMENT	827	890	850	1560									4127	130
SPUN YARN	159	277	174	178									788	0
SPUN YARNS														
SYNTHETIC	891	1256	1434	1865									5446	15338
ARTIFICIAL	123	145	216	264									748	0
PUT UP FOR RETAIL SALE	1488	1488	2601	2873									8450	2072
GRAND TOTAL ABOVE	**80843**	**75950**	**90177**	**80916**									**327886**	**297156**

SOURCE: U.S. Census Bureau Report EM522.

TABLE 13:
FILAMENT YARN DOMESTIC SHIPMENTS [a]

MILLION POUNDS

ITEM		ANNUAL DATA 1987	1988	1989	1990	QUARTERLY DATA 1990 1ST Q	2ND Q	3RD Q	4TH Q	1991 1ST Q	2ND Q	3RD Q	4TH Q
HOSIERY [b]	N	93.2	100.3	j	j	j	j	j	j	j			
OTHER CIRCULAR KNIT [c]	N	25.3	26.4	139.1	128.1	29.8	34.7	29.8	33.8	34.1			
	P	102.8	119.5	132.4	129.8	28.0	31.6	34.0	36.2	27.1			
	C	1.1	0.6	0.5	0.8	0.2	0.2	0.2	0.2	0.2			
FLAT KNIT	C	27.9	24.3	21.4	15.0	5.1	4.5	2.9	2.5	3.7			
	N	131.4	133.4	125.2	103.7	23.3	26.2	27.7	26.5	25.3			
	P	162.5	162.1	181.0	142.7	33.6	38.7	35.4	35.0	37.4			
CARPET FACE	N	916.0	938.3	932.3	948.7	239.6	232.1	232.6	244.4	177.4			
	O	244.5	266.6	249.9	360.4	84.7	89.5	95.5	90.7	90.4			
CARPET BACKING [d]	O	425.3	427.0	463.4	447.5	116.7	117.3	111.3	102.2	96.5			
OTHER BROAD WOVEN [e]	C	122.8	141.9	149.4	152.9	32.8	37.0	41.5	40.6	34.4			
	N	79.4	78.3	88.8	95.5	24.9	24.1	24.1	22.4	20.9			
	P	379.4	391.3	360.7	353.3	84.0	94.5	91.9	82.9	86.8			
	O	317.7	337.3	337.5	415.0	91.1	111.8	109.2	102.9	84.1			
NARROW WOVEN [f]	C	2.2	4.4	4.4	3.2	0.8	1.3	0.5	0.6	0.2			
	N	42.1	42.0	36.9	35.7	8.2	8.8	9.3	9.4	9.9			
	P	66.2	81.0	76.4	73.1	16.6	17.9	17.8	20.8	13.3			
	O	17.7	19.0	19.8	17.3	3.9	4.4	4.7	4.3	3.9			
TIRES, INCL. CHAFER [g]	N	143.0	132.2	135.7	128.2	31.0	32.8	32.4	32.0	34.5			
	P	162.8	171.8	174.9	167.2	41.2	42.9	40.4	42.7	37.4			
OTHER RUBBER INDUSTRY [c g]	N	16.4	20.4	18.1	19.1	5.0	4.6	4.3	5.2	5.1			
	P	34.5	25.2	32.7	40.7	8.4	13.0	9.4	9.9	8.4			
ROPE, CORDAGE & FISHLINE	N	37.9	36.4	34.2	39.2	9.5	9.3	9.9	10.5	8.8			
	P	13.4	12.5	14.4	15.1	4.0	3.8	3.8	3.5	3.4			
	O	106.7	120.3	125.6	120.8	28.6	30.6	25.2	36.4	26.3			
ALL OTHER [h]	C	12.8	11.4	11.6	0.8	0.2	0.3	0.2	0.1	0.2			
	N	69.6	64.7	65.0	39.3	11.2	10.6	7.7	9.8	11.1			
	P	191.8	194.0	138.2	124.3	25.9	29.5	27.2	41.7	35.3			
	O	23.6	29.6	29.8	43.9	10.8	11.8	10.6	10.7	10.8			
TOTAL ABOVE	**C**	**166.8**	**182.6**	**187.3**	**172.7**	**40.1**	**43.3**	**45.3**	**44.0**	**38.7**			
	N	**1554.3**	**1572.4**	**1575.3**	**1537.5**	**382.5**	**383.2**	**377.8**	**394.0**	**327.1**			
	P	**1113.4**	**1157.4**	**1110.7**	**1046.2**	**241.7**	**271.9**	**259.9**	**272.7**	**249.1**			
	O	**1135.5**	**1199.8**	**1226.0**	**1404.9**	**335.8**	**365.4**	**356.5**	**347.2**	**312.0**			
TOTAL DOMESTIC		**3970.0**	**4112.2**	**4099.3**	**4161.3**	**1000.1**	**1063.8**	**1039.5**	**1057.9**	**926.9**			
ALSO DIVIDED AS													
APPAREL		*930.2*	*941.2*	*924.7*	*847.9*	*192.4*	*216.6*	*210.8*	*228.1*	*218.0*			
HOME TEXTILES		*1838.4*	*1902.6*	*1927.2*	*2036.5*	*511.3*	*514.9*	*512.9*	*497.4*	*426.6*			
INDUSTRIAL		*1201.4*	*1268.4*	*1247.4*	*1276.9*	*296.4*	*332.3*	*315.8*	*332.4*	*282.3*			
SHIPMENTS OF FEED & PRODUCER-TEXTURED YARN (NONCARPET) [i]													
NYLON		NA	NA	NA	NA	NA	NA	NA	NA	NA			
POLYESTER		626.3	649.9	597.3	560.4	123.2	144.6	140.3	152.3	146.7			
OLEFIN		26.6	24.4	26.0	28.7	7.4	8.0	6.9	6.4	6.0			

(C) ARTIFICIAL (CELLULOSIC) YARN *(N) NYLON* *(P) POLYESTER* *(O) OLEFIN*

NA No longer available.

a. Filament yarn plus monofilament shipments by primary trade or end use; olefin includes spunbonded polypropylene but does not include spunbonded polyethylene.

b. Small quantities of polyester and artificial (cellulosic) yarn are included in All Other.

c. Small quantities of olefin are included in All Other.

d. Small quantities of nylon and polyester are included in All Other.

e. Other Broad Woven except carpets, tire fabric, flat belting, etc.

f. Narrow Woven includes apparel ribbons and braids, auto seat belts and/or furniture webbing.

g. Artificial (cellulosic) yarn quantities included in All Other.

h. All Other includes sewing thread and other industrial applications. The olefin quantities include sliver knit backing. Also includes indirect exports.

i. These quantities are included in the Total Domestic area above.

j. Nylon quantities are included in Other Circular Knit.

TABLE 14:
STAPLE+TOW DOMESTIC SHIPMENTS

MILLION POUNDS

ITEM		ANNUAL DATA 1987	1988	1989	1990	QUARTERLY DATA 1990 1ST Q	2ND Q	3RD Q	4TH Q	1991 1ST Q	2ND Q	3RD Q	4TH Q
HOSIERY, SWEATERS & CRAFT YARNS[a]	A	192.4	183.2	174.5	139.7	41.0	32.0	32.2	34.5	30.1			
	NPR	3.5	2.7	2.1	2.4	0.6	0.5	0.6	0.7	0.6			
PILE FABRICS[b]	A	20.8	21.3	20.0	15.2	4.2	4.4	3.5	3.1	2.5			
	P	19.7	14.7	15.3	12.4	3.5	3.5	2.8	2.6	2.8			
OTHER CIRCULAR KNIT + FLAT KNIT[c]	R	3.7	2.5	NA	NA	NA	NA	NA	NA	NA			
	A	185.1	139.0	132.4	109.0	32.5	33.8	26.0	16.7	24.4			
	P	453.3	470.0	519.5	485.3	123.4	129.1	117.8	115.0	109.4			
BLANKETS[b]	A	25.7	25.1	29.8	i	i	i	i	i	i			
	P	9.2	6.9	9.2	3.3	1.4	0.6	0.5	0.8	0.3			
OTHER BROAD WOVEN	R	230.7	243.0	NA	NA	NA	NA	NA	NA	NA			
	N	38.7	35.2	32.7	26.9	6.2	8.6	7.0	5.1	j			
	A	41.7	39.3	40.5	50.7	13.4	13.7	11.6	12.0	10.9			
	P	839.2	863.5	821.8	687.4	165.7	172.8	172.0	176.9	156.3			
	O	20.2	17.1	21.6	18.3	5.2	4.4	4.9	3.8	8.6			
CARPET FACE YARNS[f]	R	+	0.4	NA	NA	NA	NA	NA	NA	NA			
	N	905.1	887.7	894.9	896.8	230.2	227.9	223.4	215.3	162.2			
	P	209.0	261.2	211.6	166.5	48.0	40.1	40.4	38.0	38.2			
	O	116.2	138.2	137.7	127.4	34.2	33.7	31.4	28.1	23.9			
FIBERFILL[d]	P	348.6	357.2	349.5	376.3	90.6	91.4	93.4	100.9	96.5			
FLOCK	NP	5.5	6.9	7.5	9.6	1.9	2.6	2.2	2.9	3.3			
	R	0.9	0.1	NA	NA	NA	NA	NA	NA	NA			
NONWOVENS[e]	R	124.4	122.3	NA	NA	NA	NA	NA	NA	NA			
	N	1.9	2.1	2.4	2.9	0.6	0.7	0.9	0.7	j			
	P	204.2	244.1	271.5	239.9	54.4	60.0	59.8	65.7	57.1			
	O	198.0	180.9	194.8	232.5	52.2	61.8	57.6	60.9	63.1			
ALL OTHER	R	22.7	17.2	NA	NA	NA	NA	NA	NA	NA			
	N	14.8	13.7	17.8	13.9	3.9	3.2	2.1	4.7	13.6			
	A	13.6	13.2	17.4	37.6	7.7	10.1	10.7	9.1	8.2			
	P	115.0	91.3	61.0	42.0	14.8	12.9	7.1	7.2	6.7			
	O	6.7	8.0	9.3	9.7	2.4	2.1	2.9	2.3	1.5			
TOTAL ABOVE	**R**	**383.1**	**386.0**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**			
	N	**966.0**	**944.9**	**955.3**	**950.2**	**242.6**	**243.1**	**235.7**	**228.8**	**179.1**			
	A	**479.3**	**421.1**	**414.8**	**352.2**	**98.8**	**94.0**	**84.0**	**75.4**	**76.1**			
	P	**2201.0**	**2311.8**	**2261.3**	**2015.4**	**502.6**	**510.8**	**494.3**	**507.7**	**467.9**			
	O	**341.1**	**344.2**	**363.4**	**387.9**	**94.0**	**102.0**	**96.8**	**95.1**	**97.1**			
TOTAL DOMESTIC		**4370.5**	**4408.0**	**3994.8**	**3705.7**	**938.0**	**949.9**	**910.8**	**907.0**	**820.2**			
ALSO DIVIDED AS													
APPAREL		*1479.9*	*1421.6*	*1266.8*	*1061.6*	*278.8*	*274.0*	*259.0*	*249.8*	*236.2*			
HOME TEXTILES		*1755.8*	*1827.5*	*1695.7*	*1597.4*	*414.0*	*405.2*	*392.8*	*385.4*	*315.2*			
INDUSTRIAL		*1134.8*	*1158.9*	*1032.3*	*1046.7*	*245.2*	*270.7*	*259.0*	*271.8*	*268.8*			

(R) RAYON[h] (N) NYLON (A) ACRYLIC+MODACRYLIC (P) POLYESTER (O) OLEFIN[g]

NA No longer available.

a. Olefin quantities are included in All Other.
b. Rayon and nylon quantities are included in All Other.
c. Nylon quantities are included in All Other.
d. Rayon, acrylic and nylon quantities are included in All Other.
e. Wet & dry laid and needled batts only
f. Acrylic and nylon quantities are included in All Other.
g. Data exclude Vinyon.
h. Rayon staple+tow data no longer available in 1989-1991.
i. Acrylic quantities are included in All Other.
j. Nylon quantities are included in All Other.

TABLE 15:
SELECTED U.S. MONTHLY FIBER DATA

MILLION POUNDS

ITEM	1991 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR TO DATE[a] 1991	1990
MANUFACTURED FIBER TOTAL SHIPMENTS[b,c]														
ARTIFICIAL (CELLULOSIC)														
YARN	14.8	16.4	16.2	20.3	18.0								85.7	83.4
RAYON STAPLE	20.4	16.2	22.1	21.4	25.7								105.8	135.0
TOTAL ARTIFICIAL (CELLULOSIC)	35.2	32.6	38.3	41.7	43.7								191.5	218.4
SYNTHETIC (NONCELLULOSIC)														
YARN+MONOFILAMENTS														
NYLON - INDUSTRIAL[d]	29.2	28.1	26.5	27.9	28.6								140.3	140.8
- CARPET	69.4	54.5	63.8	80.3	85.8								353.8	415.5
- TEXTILE	34.2	30.0	28.8	32.9	33.0								158.9	151.0
POLYESTER - INDUSTRIAL[d]	25.0	27.0	26.5	29.1	29.0								136.6	150.6
- TEXTILE[f]	67.9	61.5	64.4	75.9	74.4								344.1	309.0
OLEFIN[e]	103.4	104.4	109.4	119.0	121.0								557.2	589.1
TOTAL YARN	329.1	305.5	319.4	365.1	371.8								1690.9	1756.0
STAPLE+TOW+FIBERFILL														
NYLON	66.8	54.7	64.1	78.1	77.8								341.5	421.7
ACRYLIC+MODACRYLIC	36.5	34.8	35.5	34.2	37.5								178.5	206.0
POLYESTER	168.6	159.6	166.1	191.7	189.1								875.1	876.3
OLEFIN	34.7	30.9	34.6	38.8	41.5								180.5	171.1
TOTAL STAPLE	306.6	280.0	300.3	342.8	345.9								1575.6	1675.1
TOTAL SYNTHETIC (NONCELLULOSIC)	635.7	585.5	619.7	707.9	717.7								3266.5	3431.1
TOTAL MANUFACTURED FIBER	670.9	618.1	658.0	749.6	761.4								3458.0	3649.5
MANUFACTURED FIBER END-OF-MONTH STOCK														
ARTIFICIAL (CELLULOSIC)														
YARN	10.2	9.6	10.0	9.6	9.4								9.4	7.6
RAYON STAPLE	22.4	27.3	26.0	26.6	23.9								23.9	11.9
TOTAL ARTIFICIAL (CELLULOSIC)	32.6	36.9	36.0	36.2	33.3								33.3	19.5
SYNTHETIC (NONCELLULOSIC)														
YARN+MONOFILAMENTS														
NYLON - INDUSTRIAL[d]	25.0	23.9	24.7	26.9	26.1								26.1	30.1
- CARPET	72.0	80.6	77.6	66.3	58.5								58.5	65.4
- TEXTILE[f]	46.2	46.2	45.1	45.6	47.3								47.3	63.5
POLYESTER - INDUSTRIAL[d]	41.0	43.0	41.8	44.6	42.5								42.5	37.9
- TEXTILE[f]	86.4	93.4	93.9	90.5	90.7								90.7	99.7
OLEFIN[e]	61.5	59.7	61.1	59.3	55.9								55.9	63.2
TOTAL YARN	332.1	346.8	344.2	333.2	321.0								321.0	359.8
STAPLE+TOW+FIBERFILL														
NYLON	71.0	81.6	79.7	68.2	61.2								61.2	47.7
ACRYLIC+MODACRYLIC	73.4	72.4	67.9	72.1	74.9								74.9	78.9
POLYESTER	192.7	189.5	192.0	185.8	170.5								170.5	210.8
OLEFIN	29.8	30.0	31.5	33.8	30.6								30.6	28.5
TOTAL STAPLE	366.9	373.5	371.1	359.9	337.2								337.2	365.9
TOTAL SYNTHETIC (NONCELLULOSIC)	699.0	720.3	715.3	693.1	658.2								658.2	725.7
TOTAL MANUFACTURED FIBER	731.6	757.2	751.3	729.3	691.5								691.5	745.2

	COTTON & WOOL CONSUMPTION[g] 1ST QUARTER	2ND QUARTER	3RD QUARTER	4TH QUARTER	YEAR TO DATE 1991	1990
RAW COTTON	1030.3				1030.3	1015.3
APPAREL CLASS WOOL	34.9				34.9	31.7
CARPET CLASS WOOL	3.1				3.1	3.8
TOTAL RAW WOOL	38.0				38.0	35.5

a. "Year to date" totals for stock, are the latest month's figures.
b. The monthly production of each fiber may be calculated as total shipments plus a stock increase, or less a stock decrease, over the month.
c. Producers' total domestic shipments plus export shipments.
d. Industrial is defined as 500 denier and coarser with an Instron tenacity of 7 grams or more per denier.
e. Olefin yarn+monofilaments also includes spunbonded polypropylene and film fiber produced for textile end uses.
f. Includes low denier industrial yarn.
g. **Cotton and Wool data for 1991 available on a quarterly basis only.**